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THE
SURGICAL TREATMENT
OF CERTAIN
FIBROUS TUMOURS OF THE UTERUS,
HERETOFORE
CONSIDERED BEYOND THE RESOURCES OF ART.

BY
WASHINGTON L. ATLEE, M.D.,
OF PHILADELPHIA.

EXTRACTED FROM THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION
FOR THE YEAR 1853, FOR PRIVATE DISTRIBUTION.

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CERTAIN FIBROUS TUMOURS OF THE UTERUS.

IN considering the surgical means for the removal of fibrous or fibro-cellular tumours of the uterus, it will be necessary to distinguish the different situations which they occupy in relation to that organ. The following classification, however, is not offered as strictly and pathologically correct, but adopted mainly to assist in illustrating the measures employed in the treatment of such tumours. I shall principally confine myself to the consideration of those tumours which have heretofore been supposed inaccessible to the knife, or not amenable to curative measures.

I ought to remark too, that the following essay is based wholly upon my own experience; I alone am responsible for the facts therein contained, the treatment adopted, and that which will be proposed.

It will be proper, also, before entering upon the treatment in detail, to associate with the classification the symptoms and diagnosis of fibrous tumours. Here, however, I shall confine myself to the most prominent features. No symptom enables the practitioner to anticipate with certainty the existence of such tumour, and it is often ascertainable only after it has acquired considerable size. Sometimes, a digital examination will discover it at a very early period, and when of small size.

These tumours may be classified as follows:—

1. Extra-uterine, or surface tumours.
2. Intra-uterine, or cavity tumours.
3. Intra-mural tumours of the uterus.

1. EXTRA-UTERINE TUMOURS.

Extra-uterine tumours originate from the peritoneal or external surface of the body and fundus of the uterus, and beneath the peritoneal coating. They are projected, as they become developed, into the cavity of the abdomen, elevating the peritoneum and retaining it as an envelop, assuming often an immense size. They may or may not be pedunculated. When attached to the uterus by a stem, the size and character of this attachment may differ in different tumours. In some, the pedicle is very slender and membranous, consisting chiefly of peritoneum with long cellular tissue, and vascular. In others, it is thicker and more resisting, constituted of both fibrous and cellular tissue, yet differing in character from the tumour itself. Again, tumours are found entirely sessile, directly attached to the external wall of the uterus, without an intervening pedicle, but narrowing at the point of junction into a distinct neck. And lastly, we notice them without a pedicle, or neck, or any narrowing, imbedded as it were in the substance of the uterus immediately beneath its peritoneal coat. The first three varieties have been removed by the operation of gastrotomy. I am not aware that any operation has been accomplished, or proposed, for the removal of the last. I apprehend that they can be extirpated, after opening the abdomen, by making an additional slit in the peritoneal coat of the tumour, and then enucleating or turning out the mass from its bed.*

Opportunities are not unfrequently afforded in dissecting-rooms of examining these uterine tumours, and they are generally found to be invested with a species of cyst, formed by the peritoneal covering over one half, and the uterine substance beneath the other, to which cyst they adhere by very short cellular tissue. This tissue, by a moderate degree of force, can be lacerated, and consequently the covering can be peeled from the tumour. The same thing obtains in the living body. This will not be the case, however, if the tumour has undergone either inflammation or degeneration; as, in the first case, adhesions will be formed between it and the cyst, and in the latter case, the cellular structure of the uniting membrane will be destroyed.

* Since writing the above, I have proved this opinion by enucleating a tumour in this manner, from the posterior surface of the uterus, in the presence of Drs. Janney, Jewell, De Young, Keller, Drysdale, and Jackson. The operation was performed March 3, 1853.

So long as these tumours continue small, they may give rise to little or no inconvenience, and consequently may pass unsuspected and undiscovered during life. As, however, they increase in size, they often occasion considerable distress and a sensation of weight in the hypogastric, iliac, and lumbar regions, accompanied by painful tension and bearing down. Frequently, though not invariably, menstruation is deranged, becoming more frequent and profuse, and the discharge often clotted. Flooding sometimes is extreme, and the patient is almost drained of blood. Urination and defecation may be more or less disturbed, sometimes difficult, and at times obstructed, and spasmodic pains affect the bowels. The tumours at first may be indolent and not sore to pressure, but finally they are apt to become painful and very sensible to pressure. The patient's general health is now observed to give way; lancinating, deep, and acute pains attack the tumour; the strength fails, emaciation is rapid, the skin assumes a straw colour, and the patient becomes anemic and dropsical. If the tumour has risen out of the cavity of the pelvis, it may be felt in the lower part of the abdomen as a hard, solid, and more or less round, movable mass. When this occurs, the patient usually becomes cognizant for the first time of the existence of such a tumour. A sudden jar of the body, as a fall, sometimes dislodges it from the pelvis, and the cause of the tumour is erroneously attributed to this accident. Sometimes the tumour above the pelvis is painful on pressure, more generally it is not.

The diagnosis of this form of tumour is not very difficult, excepting in corpulent patients. If the index-finger be passed into the vagina, the os tincæ will generally be found to have varied from its normal position; it will have left the axis of the vagina, and may be depressed or elevated. It sometimes is raised even beyond the reach of the finger, and in this case the tumour will probably occupy the cavity of the pelvis, having pushed or tilted the uterus upwards. If, while the finger is in the vagina, we place the hand upon the abdomen over the pubis, we can survey the contents of the pelvis, and may get a tolerably accurate idea of the size of the tumour and of its relations to the uterus. Indeed, in this way, assisted by the uterine sound, we can often detect tumours on the surface and in the walls of the uterus at a very early period. If, on moving the tumour between the two hands, the uterus moves uniformly with the mass, and as part of the mass, then it must be either an extra-uterine non-pedicellate tumour, or an intra-mural tumour, or a fibrous or other body occupying the cavity of the uterus. The sound will greatly

aid in distinguishing one from the other. But during the child-bearing period of life, the sound may be a dangerous instrument. The recurrence of menstruation and the absence of ballottement, aided by auscultation, will usually enable us to determine between tumour and pregnancy, and justify or not the use of the sound. Still, it will be most prudent not to act hastily. Even in pregnancy sanguineous discharges may occur, there may be too little liquor amnii to allow of ballottement, and the sounds belonging to gestation may not, for various reasons, be discoverable. It will be best, where doubt exists, to wait until time decides the question. When there is nothing to forbid its use, the sound becomes a valuable means of diagnosis. When a tumour occupies the cavity or wall of the uterus, the sound, as a general rule, will pass beyond the normal distance of two and a half inches, and it will exceed these limits proportionably to the size of the tumour. When a tumour is extra-uterine the cavity, in general, is not lengthened. To this rule, however, there are exceptions. I have seen cases of very large intra-uterine and intramural tumours, where the sound would not enter beyond the natural distance, and also, where it was intercepted far short of it; and on the other hand, I have met with cases where the cavity of the uterus was elongated by the other variety of tumours. Again, sometimes the os tincæ is too small to admit the ordinary sound, or, having entered, it may be arrested by the narrowing of the cervix called the os internum, or by an acute angle in the cervix itself. These difficulties can usually be overcome by substituting a smaller sound, and by incising the cervix by a narrow bistoury. By means of the sound, aided by manipulations in the vagina and rectum, and over the abdomen, we can also usually ascertain the point of origin of the tumour, and its location in the walls of the uterus, and at the same time decide whether it is pedicellated or not. Suppose it occupies the posterior wall, the sound will be thrown forward, while the finger in the rectum will detect the fibrous mass placed between them. This state of things, when the tumour is not large, assimilates retroversion of the uterus. Two of the most distinguished accoucheurs of this city, were misled by this state of things in a case which subsequently came under my care. The sound would have undeceived them. Again, suppose a tumour occupies the anterior wall, the sound will be thrown backwards, while the hand over the pubis will discover its location. This may be taken for anteversion, and in one instance one of the practitioners just referred to was thus misled. If a tumour be attached to the external surface of the uterus

by a long stem or pedicle, it can be moved in various directions independently of the uterus, the motions given to the former communicating no impulse or very little to the latter, and *vice versa*. A short pedicle, however, under the influence of similar manipulations, will impart more or less motion to the uterus, but yet not corresponding in extent with that given to the tumour. The introduction of the sound will enable us to distinguish this point much more accurately, as the impulse received by the uterus also affects the sound in the hand, and its motion may be watched by the eye of the operator. Besides, in reversing the method of examination, by noticing the influence upon the tumour arising from motions given to the uterus, the sound is almost essential. Thus, the sound will enable us to discover the existence of a pedicle, and also to estimate its length.

In examining extra-uterine tumours, particularly those that are pedicellated, it will be found highly advantageous to have the assistance of another surgeon, or an intelligent nurse. The several manipulations of the tumour should be made by one person, while another watches the effect they produce upon the uterus and sound, and this ought also to be the case when the method is reversed. The mind in this way more clearly defines the extent of the influences operating upon the parts under investigation.

2. INTRA-UTERINE TUMOURS.

Intra-uterine tumours arise from the internal surface of the uterus, project into its cavity, distend it, and vary, as do extra-uterine tumours in the length, thickness, and character of their pedicles. Like the latter, they may also be sessile, having no pedicle, merely narrowing at the point of junction into a distinct neck, and they likewise may be imbedded in the substance of the uterus, immediately beneath the mucous lining, having no narrowing or neck. All these tumours receive a coat from the mucous membrane of the uterus, and the vascularity of this envelop is greatly increased beyond its natural condition. When these tumours, in this situation, are composed of a pedicle or neck and a body, they are distinguished by the name of *fibrous polypi*. Their tendency is to be expelled from the cavity of the uterus into the vagina, whence they have been removed by the ligature and the knife. I prefer the latter mode.

When the tumour is imbedded in the internal wall of the uterus, and merely covered by mucous membrane, or when the polypoid tumour becomes sealed to the uterine surface, as it sometimes does,

in consequence of inflammation, so that it cannot be expelled by the expulsive efforts, nor the os tincæ be opened by natural means, operative measures for its removal are supposed to be impossible. That this is not the case I shall endeavour to prove.

Intra-uterine tumours, particularly those that are imbedded and those that are adherent, produce many of the symptoms of extra-uterine tumours already stated. Other symptoms, however, are superadded, and may be considered pathognomonic. Menstruation is more irregular, generally more frequent, more profuse, often menorrhagic, the discharge frequently being stringy and clotted. Sometimes there is hemorrhage, sudden and overwhelming, rapidly draining the vascular system, and prostrating the vital powers. During the intervals the patient, to a greater or less extent, is likely to be annoyed with leucorrhœa. Even when the tumour is small, bearing-down pains may be experienced. As it enlarges it gradually distends the uterus. The distension may be confined to the body alone, or it may likewise invade the cervix, and dilate the os tincæ. The pain in the back and loins now assumes a dragging character, and a feeling of pressure and distress on the anus and neck of the bladder annoys the patient. Decided labour-pains often attack the patient, causing the most intense suffering; and these sometimes occur at regular periods. These attacks of pain are most likely to occur during the menstrual periods, and the expulsive efforts of the uterus, acting on the tumour within, frequently open the os tincæ. Hence a digital examination, at these times, will enable us to discover an intra-uterine tumour, when it will be impossible at other times.

In the very early stages of intra-uterine tumour, before the cervix and the os uteri are impinged upon, we can discover nothing by an ordinary examination, per vaginam, upon which to base a certain diagnosis. This observation will particularly apply to young or corpulent females, and indeed even those who are spare and relaxed in the abdominal walls. In the latter, the body of the uterus may be felt to be enlarged between the hand placed above the pubis and the finger in the vagina, and even an enlargement of the cervix may be recognized in addition, yet the existence of a tumour *in the cavity* of the uterus must necessarily be conjectural. It is true, that if the body of the uterus be uniformly increased in size, having no nodulated feel, and the cervix regularly expanded, the probability of the cause of the enlargement being internal would be very strong. Still, the diagnosis would be uncertain. If, however, there be no

suspicion of pregnancy, the sound may be brought in aid of the decision, and the information furnished by it may often be considered positive. In a regular polypoid or pedicellated tumour, the sound will pass into the uterus between its walls and the tumour over its whole area, excepting at the point to which the pedicle is attached. If now, while the sound is introduced, the hand be placed upon the abdomen, its point may be easily detected through the thin walls of the uterus, and if we can feel it at all points we may fairly infer that the tumour occupies the *cavity* of the uterus, and our practice may be safely based upon such an inference.

When, however, the tumour, by enlarging, or in consequence of uterine contractions, begins to press against the os tincæ after it has expanded the cervix (and even before if the os be open), the diagnosis is greatly facilitated. We then feel the tumour immediately within the os uteri, being usually convex, smooth, and hard. If the condition of the parts will allow the introduction of the finger, we can pass it entirely around the tumour, unless adhesions have been formed, or unless its pedicle is attached to the cervix. The absence of any attachments, within reach of the finger, furnishes a strong ground of supposition that the tumour originates from the fundus of the uterus. Of course, when the pedicle is within reach it is readily recognized.

The natural tendency of the uterus, however, is to expel a non-adherent polypus from its cavity and lodge it in the vagina; and in this position, particularly when small, it is readily diagnosticated by an examination. The finger can be passed entirely round and above it, until its neck is recognized within the grasp of the os tincæ. When, however, the polypus is large, so as to fill and distend the whole vagina, it may be extremely difficult, nay, impossible, to pass it with the finger; so that the neck cannot readily, or at all, be surveyed. In this event, the diagnosis may be aided by seizing the mass with an obstetric or a Musieux forceps, dragging it down to, or even through, the vulva, and, at the same time, passing the finger up to the os tincæ.

The tumour, in consequence of inflammation of its envelop, or through a peculiar process of degeneration in its own tissue, may adhere to the internal surface of the uterus, or to the circle of the expanded cervix, so that the os tincæ cannot open, nor the cavity of the uterus be entered. Here the above means of diagnosis—the finger and sound—will not avail, and our opinion of its location must necessarily be more or less conjectural. So far as its treatment is

concerned, however, we can act in the same way as in the intra-mural tumours, which we shall next consider.

3. INTRA-MURAL TUMOURS.

Intra-mural tumours originate in the very substance of the parietes of the uterus itself, within the muscular interstices. This may occur at equidistances from the external and internal surfaces of the uterus, or at any point between them. The proper tissue of the organ does not enter into their composition; it is merely pushed aside by the tumour, the muscular fibres being separated and surrounding the tumour like a cyst. This remark, however, does not apply to fibrous tumours after they have assumed a malignant character, and have become medullary, as the uterine tissue itself loses its normal character also. But when the tumour has not thus degenerated, and when there has been no inflammation during its growth, the uterine covering can usually be peeled off from its surface as the rind from the pulp of an orange. Of course, these tumours have no pedicle. As a general rule, their growth is less rapid than extra-uterine tumours. Sometimes they develop themselves uniformly, at others unevenly, so as to assume a lobulated or nodulated form. It is supposed that these tumours admit of no remedy. I shall endeavour to prove that they are amenable to surgical treatment.

The symptoms of this class of tumours must necessarily partake of the character of those belonging to the first, and also of those incident to the early stages of the second class.

As the tumour enlarges it rises into the cavity of the abdomen, and generally assumes a more or less central position. The hand, placed above the pubis, will detect it, and if the finger at the same time be brought against the os tincæ, it will be found that their impulses will reciprocally affect each other. The tumour and uterus invariably move in unison. A sound passed into the uterus, will enter generally beyond its natural distance, and partake of all the motions given to the tumour. While the sound is there we may ascertain the exact location of the tumour, as it will give a direction to the sound, and this can be felt through the unoccupied walls of the uterus. When the tumour is developed in the wall of the fundus uteri, the cervix may be uniform and in no way changed, but usually we find it deformed, and even turned upon itself, sometimes at an acute angle. When the tumour enlarges downwards so as to invade

the cervix, the posterior or anterior lip may be entirely obliterated and distended into a covering for the tumour. The posterior wall of the uterus, and consequently that of the cervix, most frequently are affected, and hence the os tincæ is often thrown forward, under the pubis, or even raised above it, so that it is difficult, and at times impossible, to reach it with the finger.

Besides the above classification, there is another distinction which it is important to bear in mind in connection with the prognosis and the period of treatment. I believe there is, at times, a tendency in fibrous tumours of the uterus to take on cancerous action. I know a diversity of opinion exists on this point among pathologists of eminence, but the results in certain cases under my own care lead me to think that the true fibrous tumour will occasionally degenerate into medullary tissue. It may be that *scirrhus-cancerous* tumours have in these instances been mistaken for *fibrous* tumours, as the latter, by excellent observers, are deemed incapable of becoming cancerous. Yet they were diagnosed to be fibrous, and they possessed all the physical characteristics of such tumours. If they were cancerous tumours, then I know of no method of distinguishing them in their early stage from fibrous tumours, except by the microscope, and the microscope, in many of these cases, cannot be employed as a diagnostic means. In some cases the exploring-needle will enable us to get sufficient of the structure to be submitted to the test of the microscope. If, however, I am correct in the opinion that the true fibrous tumour occasionally degenerates into cancerous disease, then it is important to know the symptoms which designate this change. So long as it remains hard and indolent, it does not greatly interfere with the general health; but so soon as it begins to soften or degenerate, it rapidly impairs the health and terminates in death. Hence the necessity of distinguishing this point, and the urgency of early treatment.

The symptoms, indicating this important mutation in the character of the tumour, vary with the class to which it belongs.

The intra-mural and extra-uterine tumours, when neither large, nor disposed to encroach on any important organ, nor to produce great hemorrhages, do not greatly impair the general health, so long as they remain hard, painless, and insensible to pressure. Their removal at this time may result in a perfect cure. But as soon as they begin to soften, are attacked with paroxysms of acute pain, are very sore to the touch, and throw off cysts, containing liquid, from their surface,

the general health fails, as indicated by the rapid diminution of strength, emaciation, anasarca, and ascites, and that peculiar straw-coloured aspect of the skin which marks the malignant type of disease. It is now almost, if not quite too late, for a successful operation.

In the intra-uterine tumour other symptoms in addition mark this change. So long as the patient has a red or white discharge from the vagina without fetor, and the tumour presents an equal hardness, while the speculum exhibits a white or flesh-coloured body, with a smooth, polished, and even surface, an operation for its removal is likely to be successful, notwithstanding the patient may have been considerably prostrated by the effects of the disease. If, however, the discharge becomes sanious and very fetid, the tumour assumes a brownish, grayish, or black colour, and softens at its lower surface, where it comes in contact with the air; and if, farthermore, these symptoms are associated with the rapid development of those characteristics which indicate the effect of malignant disease upon the general system, then the success of operative measures must be very doubtful.

These tumours, although they often have highly vascular pedicles, and are covered with a very vascular membrane, whether extra or intra-uterine, are yet, in themselves, very imperfectly organized. Consequently their vitality may be readily destroyed. A section made through their investing membrane, will sometimes be followed by the death of the whole mass. This may be owing to the admission of atmospheric air into the substance of such a tumour, causing it to degenerate. Indeed, it would appear that the action of the oxygen of the air, like a portion of yeast in a fermentable mass, may originate in any part of a fibrous tumour, an action of *cremacaussis* which may extend throughout the whole. If this opinion be corroborated by future observation, we shall then have one means of destroying such tumours in their incipient stages, and thus avoid the dangers arising from the degeneration of large masses. If, also, we can get rid of tumours whose tendency is cancerous, before they take on this action, and before the general health breaks down, the importance of such a fact becomes manifest.

The several cases reported in connection with this paper will be sufficient to substantiate the above view, but the exclusive influence of oxygen gas in establishing *cremacaussis* in these tumours when introduced into their substance, will more certainly appear from the details of the following case.

Mrs. F. K., aged 36 years. July, 1852, I first examined her in company with Dr. William Gardener. A very hard uterine tumour occupied the abdomen, its shape and size very much like the uterus at the seventh month of gestation. September following I examined her again. The same tumour could be discovered, but she had enlarged greatly. She was now larger than is usual at the full period of pregnancy, and the tumour had changed its character, throwing off cysts from its superior surface. The upper part of the abdomen particularly, had become elastic, and a fluid could be distinctly fluctuated. October 4, the patient having increased much more in size, and suffered great agony, I attempted to relieve her by paracentesis. I introduced a very large trocar into the linea alba, about three or four inches below the umbilicus, and pushed it in nearly its whole length. Only a few drops of fluid escaping, I passed the uterine sound through the canula, and it was arrested by a resisting mass. After probing in several directions, the sound, aided by considerable pressure, finally passed on backwards and upwards into a cyst, from which escaped slowly about three pints of dark-coloured fluid and a small quantity of blood. After this cyst was emptied I partially withdrew the canula, and again replacing the trocar, I directed it upwards and towards the right side to its utmost extent, with a view of striking a cyst in that direction. But no fluid escaped. I again used the sound as a probe, pushing it beyond the canula into another cyst, from which flowed about three pints of quite clear transparent fluid. After tapping, both sides sunk, leaving a central mass, hard and resisting, and covered with protuberances. This was the original tumour. The trocar had passed through this hard mass to reach the cysts, and consequently atmospheric air, in consequence of the continued and free manipulations, was readily admitted. October 12. The patient was larger than ever. In twenty-four hours after the tapping she was as large as at first. The cysts, instead of being filled with fluid, were now greatly distended with gas. To relieve this flatulent distension, I introduced in two places a small trocar and canula, through which a large quantity of fetid gas and some fluid escaped. This had the effect of relaxing the walls of the abdomen. The solid tumour could now be felt, but it evidently was softening. October 23. The abdomen having become greatly distended again, I passed the small trocar through the old orifice, and a large quantity of the most fetid gas escaped, and a considerable amount of offensive fluid, resembling thick soap-suds or rich chocolate. A large quantity of fluid still remained too thick

to pass the small canula. To remove this, I introduced the large trocar through the cicatrix left by the first paracentesis, and extracted fourteen pints of a similar fluid, much thicker, and filled with broken-down degenerated tissue, extremely fetid. The fibrous tumour had evidently softened and liquefied, the most of it having disappeared. The canula was permitted to remain *in situ*, and the whole mass disappeared in an offensive discharge in the course of five or six weeks.

Treatment.—The treatment of the various forms of fibrous tumours of the uterus will be best illustrated in the report of the following cases, and consequently I need not here refer to that which will more properly be given in connection with each case. I wish, however, to call special attention to a fact, which is of great importance, in relation to the treatment of patients afflicted with these tumours. It is this: *That the excessive hemorrhages, which sometimes occur, arise, not from the uterus itself, but from the vessels of the membrane which cover the tumours.* These floodings, I think, occur in this way: the veins of the investing membrane become, at times, greatly engorged, in consequence of their circulation being impeded by the muscular action of the uterus, while the arteries, by reason of their more resisting coats, continue to supply them with blood. This engorgement, also, may be induced or greatly aided by any obstruction to the venous circulation of the vessels of the abdomen. It may increase more and more until the vessels of the coating burst at a point where the resistance is least, and sudden and violent hemorrhage is the result. The point of least resistance must necessarily be at the os uteri, as all other parts of the tumour are compressed by the contracting uterus. This condition of things may be compared to that of an arm bandaged for venesection: the ligature arrests only the venous circulation, and the veins become tensely tightened in consequence of the persistence of the arterial supply. The mucous tissue covering these tumours, having been derived from the mucous lining of the uterus, is necessarily extremely delicate, and offers but little resistance to the rupture of these vessels. Now, the practice which I wish to inculcate as based upon the above fact, and which has invariably arrested hemorrhage instantaneously, may at first view seem startling. It is: *During hemorrhage, to pass the bistoury along the vagina into the cavity of the uterus, and make a very free incision into the most exposed portion of the tumour.* A small gush of blood will follow, and the bleeding will soon cease. The cut

ends of the vessels retract, and the blood soon coagulates in their mouths.

CASE I.—*Mrs. M., 49 years old; tumour intra-uterine, nearly its entire surface sealed to the interior of the uterus, even down to the edge of the os tincæ; the whole tumour removed; supposed weight ten pounds; recovered; death subsequently from inflammation of the lungs.*

April 14, 1845. I was requested by Dr. Kerfoot, of Lancaster, Pa., to accompany him to see Mrs. M., a lady aged about 45 years, who had come from one of the western counties to place herself under his professional care. On examination externally, it was very apparent that a large tumour occupied the cavity of the abdomen. It was uniformly globular, very firm and resisting, extended between two and three inches above the umbilicus, spread out upon each side equally nearly to the spinous processes of the ilii, and produced an unusual anterior prominence. In fact, it was an equally developed globe, and seemingly balanced upon the brim of the pelvis. Pressure upon the tumour produced no pain except over the left side, where one spot had always been sensitive on pressure. The skin of the umbilicus was also very tender to the touch, and slightly tumefied and discoloured. Percussion of the tumour returned a very flat sound.

By the toucher, the os tincæ was discovered to be well defined, rather uneven, thickened, and firm, and free from tenderness. It was considerably elevated in the pelvis, and seemed to be fixed upon the centre of the convex surface of a tumour resting upon the brim of the pelvis. It was closed, at least the projecting lips lay in apposition, but the point of the finger could, by forcing, be insinuated between them. The finger thus introduced immediately came in contact with a very solid body, occupying the cavity of the uterus. In endeavouring to insinuate the finger between the tumour and cervix uteri, a barrier, in the form of strong fibrous bands running from the edge of the os tincæ to the lower point of the tumour, was met with on the left side, and which bound the two firmly together. On the right side, however, opposite the right acetabulum, the finger could be forced higher up without meeting such opposition. This led to the inference that the tumour was adherent to the uterus on the left side only, and free upon the right, and it was proposed to ascertain the fact by the introduction of sounds. No blood stained the finger or followed the examination.

15th. The uterus was surveyed with curved sounds—the ordinary

calculeus sounds. They were readily passed up through the opening on the right side, and after a little delay they ascended between the tumour and uterus towards the fundus until the handles struck against the os tincæ. The instruments were too short to reach the fundus, neither could they be carried anterior to the tumour, but we supposed they swept over the tumour for some distance posteriorly and laterally, which, however, was only apparent, as will hereafter appear. The great angle formed by the anterior projection of the tumour, explained, satisfactorily at the time, the reason of the failure in getting the instrument in front of the tumour. Very little blood followed this examination.

The inference now became stronger that adhesions existed only upon the left side, and that the right side of the tumour was entirely free from them, even up to the fundus.

In this state of things what ought to be attempted? What could be accomplished? The patient was exceedingly desirous that some effort should be made for her relief, that she should not be sent home unrelieved from the tumour. It will be perceived that, in consequence of the great angle formed by the anterior face of the tumour with the axis of the inferior strait, it would be utterly impossible to throw a ligature over the fundus of the former in that condition of the os tincæ, even if such a course would have been sanctioned by correct surgery. All surgical authority that I have referred to, condemns any interference with polypus of the uterus in cases where the os tincæ is closed, and where the tumour has not descended into the cavity of the vagina, or exterior to it. In this extremity, I proposed to administer the vinous tincture of ergot in small and repeated doses, in order to stimulate the expulsive power of the uterus, and thus gradually effect dilatation of the os tincæ to a sufficient degree to admit the free use of instruments constructed specially for securing the supposed pedicle upon the left side. This was administered by her physician for a considerable period with the effect of producing decided evidence of uterine action, although no dilatation of the os uteri was accomplished. The use of ergot was suspended during the ensuing menstrual period, and recommenced afterwards with no better effect; and in consequence, early in the month of May, Dr. Kerfoot reported the fact of failure in producing the condition desired.

May 5. I met Dr. K. again in consultation. A very careful examination was now made with a view to ascertain why ergot, after evincing specific action on the uterus, had failed to dilate the os tincæ.

As the administration of the medicine had been suspended for about twenty-four hours previously, and the uterus was free from its influence, the cause of failure was soon plainly discoverable. The os tincæ was not any more open than before, although it was now dilatable. It resembled resisting caoutchouc, capable of being forcibly stretched; but, after the force was removed, returning again to its original condition. During the action of the ergot, however, Dr. K. assured me there had been no alteration in the os tincæ. In consequence of this change, a much more satisfactory examination could be instituted. Adhesions were now detected not only upon the left side, but continuing completely round the os tincæ, except a small space upon the right side which admitted only the point of the finger. These adhesions consisted of bands passing directly from the edge and internal face of the os tincæ to the tumour, and binding them so closely together that no efforts of the uterus could have possibly dilated its mouth. The bands were very strong, tendinous-like, making numerous edges with sulci between them, and entirely closing the uterus except at the point referred to. Here there was an extraordinary, and, so far as records show, perhaps a unique condition, which required a new mode of treatment in order to effect a delivery from the burden. It was very evident that, to follow the established rule of surgery, and wait for the uterus to expel the tumour into the vagina, before attempting its detachment, would be to consign our patient to irrelievable suffering. It was also evident that ergot could accomplish nothing for our assistance. I therefore proposed to Dr. K. to cut these bands with a bistoury, and after this to administer the ergot with the original object, and, as other adhesions would be brought within reach by its action, to repeat the operation of detachment; and thus, by successive resorts to ergot and the knife, to remove the tumour entirely, or to place it in such position as to make it accessible to the ligature.

8th. We now agreed to associate with us in consultation Dr. F. A. Muhlenburg, to whom we communicated our views. He united in our opinions, and arrangements were made for putting them into immediate practice, as follows:—

The patient was placed upon her back across the bed with her hips at the edge and her feet resting upon two chairs; I then proceeded to sever with Cooper's hernia bistoury all the adhesions within reach. While operating, the os tincæ was carefully protected from the edge of the knife by the index-finger of the opposite hand, and secured

from injury, in addition, by turning the back of the knife rather towards the uterus, and cutting through the bands with the edge inclined upon the tumour. The adhesions were exceedingly firm and sinewy, and grated audibly under the knife, requiring considerable force to sever them. The separation of the *os tincæ* from the tumour was carried up about three-fourths of an inch or more, but it still remained firm, unyielding, and undilated. During the operation the patient complained very much of her back, and also of a spot upon the left side. Not more than three or four ounces of blood were lost in the operation, which was tedious and difficult, producing an urgent desire to urinate, but followed by no extraordinary exhaustion.

Slight febrile excitement supervened, but yielded to laxatives and antiphlogistic regimen, and passed off entirely in two or three days. After this *ergot* was again administered for several days, producing, however, scarcely any effect upon the *os tincæ*.

June 5. This day was fixed upon for a second recurrence to the knife. The *os tincæ*, although it had opened very little, was rather more dilatable, and could be extended by the point of the finger, which could be introduced with more ease. There seemed to be a disposition, also, for the uterus to descend more into the cavity of the pelvis. The adhesions were consequently brought more within reach, and many of them could be detected around nearly the whole circumference of the *cervix uteri*, passing off from its internal face to the tumour, binding both firmly together, and preventing the farther dilatation of the *os tincæ*. To facilitate the section of these bands, I determined on the use of a hook, which could be passed into the uterus, through the opening on the right side, and carried high enough to ride over the bands, then bringing them down by traction, so that they could be firmly holden until severed by the knife. The hook was placed in Dr. Kerfoot's hand, who passed it into the uterus with the view of using it as above, but finding its employment unsatisfactory, he requested me to try it. I found that, instead of attaching itself to the bands, it hitched upon the rigid edge of the *os tincæ*, and hence, as it was likely to be unsafe in its use, this expedient was abandoned. Drs. K. and M. now desired me to proceed with the operation, which I did, as originally proposed. With Cooper's bistoury I severed numerous strong, tendinous-like, and very thick bands, using the index-finger as the guide to the knife, and as a shield to the uterus, and carefully keeping the knife between it and the tumour.

The adhesions above the pubis anteriorly were very difficult to manage, in consequence of the inconvenient angle made by this point with the axis of the inferior strait of the pelvis. I, however, succeeded in detaching the bands quite round for a considerable distance above the point reached by the finger. This was safely done by pushing the end of the bistoury high up, retaining its blade upon the face of the finger, and cutting always towards the tumour in the act of bringing down the knife. It was equally surprising and gratifying, after severing these elevated adhesions, to find how immediately and rapidly the mouth of the uterus dilated, allowing the tumour to descend into the superior strait of the pelvis. More blood was lost during this operation than the first, but still the quantity was inconsiderable, and was followed by no unpleasant prostration. The patient complained, as before, greatly of her back and left side, and of an uncontrollable desire to pass water. Less excitement followed this operation than the former.

10th. In consequence of the remaining adhesions being beyond reach of the index-finger, and the os tincæ being much dilated, the parts were explored by introducing the hand. Each of us made this examination, deeming it important to obtain an accurate idea of the situation of the tumour before proceeding with the third operation. The lower portion of the tumour was discovered to occupy the upper part of the vagina, and was protruding through the os tincæ very much as the membranes in parturition. It was also losing its resisting and indurated feel. By insinuating the fingers between the cervix uteri and the tumour, adhesions of the same character could be detected around the whole circumference, except a small space upon the right side, binding the tumour closely to the interior surface of the uterus. In the space unoccupied by these bands, I could, with considerable pressure, pass three of my fingers up between the tumour and the uterus, and, as far as I could reach, I discovered the existence of similar adhesions, both anteriorly and posteriorly to the fingers. This, therefore, must have been the only outlet for the catamenia.

The patient complained more of this examination than of the two previous operations, and suffered more constitutional disturbance for several hours following.

14th. The lower portion of the tumour was found to be descending, and the os tincæ becoming softer and more dilatable.

19th. Since the operation of the 5th instant, there was evidently a gradual degeneration of the lower portion of the tumour, accompanied

by a fetid discharge from the vagina, such as is peculiar to putrefying animal matter when being thrown off from vital parts, and which impregnated the air of the chamber so as to render it quite offensive to the patient and others. This was in some measure rectified by the use of the hypochlorite of lime. This period was likewise marked by certain hysterical symptoms, and slight irritative fever, which seemed likely to continue so long as the tumour remained *in utero*. It was therefore deemed advisable to make a final effort for its complete destruction and removal.

The great bulk of the tumour occupying the abdominal region, and the remaining adhesions being above the superior strait, the instruments heretofore employed would not answer for the completion of the operation. I therefore constructed a knife, specially for this purpose, by taking a long, curved, probe-pointed English bistoury from its handle and affixing instead a long and strong handle of hickory-wood, and then wrapping the proximal two-thirds of the blade. This made a knife about ten inches long, with a cutting edge about one inch in length.

The patient having been placed in the same position as before, my colleagues took a position to render assistance if needed. Taking a seat immediately in front of the patient, and anointing the left hand well with oil, I introduced it into the vagina and grasped the lower portion of the tumour; then passing in the long bistoury along the hollow of the hand, I bisected this portion of the tumour, and detached the divisions on a level with the os tinæ. This portion of the tumour was void of vitality, and much resembled a mass of wet tow. In consequence of its degenerated character, it had too little rigidity and too much tenacity to be easily cut, and it was with the greatest difficulty that it was detached. The removal of this part now afforded a good opportunity for examining the internal face of the cervix uteri. This result marked the difficulties to be encountered in the subsequent steps of the operation, because it was manifest that a continuous tissue of adhesions sealed the tumour to the whole interior face of the uterus, except the small space before noticed. I now determined to destroy the whole internal structure of the tumour. With the left hand within, as a guard to the walls of the uterus and a guide to the knife, I cut, with the long bistoury, into the tumour, in various directions, detaching and removing portions repeatedly. In doing this, I was aided very much in the use of the knife, by fixing the tumour with one blade of the old-fashioned crotchet passed up through the incised interstices and imbedded into its substance, thus

enabling me to put the fibre upon the stretch so as to react with more effect upon the edge of the knife. I made use, also, of the old style cranial perforator with great advantage, employing it as scissors within the lacerated cavity of the tumour in detaching pendulous portions. After persisting in this course a considerable time, the uterus being supported externally by my associates, I succeeded in breaking up the whole internal structure of the tumour, and in scooping out a large quantity of it. The shell of the tumour still remained undisturbed by the knife, and was firmly held by the remaining adhesions to the uterine walls. With the back of the bistoury kept carefully turned towards the parietes of the uterus, and directed by the hand within, I cautiously ploughed it through this shell in every point. I next sought for the free surface of the tumour upon the right side, into which I introduced my fingers and endeavoured to break it down from the uterine walls, but failed in consequence of the density of its investing membrane, and the firm unyielding bands which bounded this space. In this manœuvre, it was evident that my fingers approached nearly to the fundus of the uterus, which had descended in consequence of the contractions that followed the removal of the large interior portions of the tumour. In order, however, to detach this free part, I substituted for my fingers the crotchet, passing it high up and fixing it into the top of the tumour; and then, with the long bistoury anteriorly and posteriorly to the crotchet, its back riding against the uterine walls, I severed this segment of the shell, which was the only free portion in the cavity. Having now accomplished all which could safely be done with the knife, I next introduced my hand, and attempted to destroy more effectually the integrity of the shell with the ends of my fingers, scooping into its lacerated substance, comminuting it, and destroying many of its connections, and almost wholly disintegrating the entire mass. Many of the bands exceeded an inch in diameter, requiring considerable force to rupture them; but by operating on these with the edges of the nails, and making traction, they gradually yielded. In this way, I went over the whole interior of the uterus, breaking up the structure of the tumour. During this prolonged part of the operation the patient suffered most, and became considerably prostrated. This was followed by a chill and nervous tremor.

The operation lasted about two hours, and was exceedingly difficult, troublesome, tedious, and fatiguing; the uterus repeatedly contracting upon the hand and arm, incarcerating and paralyzing them. After this operation, the uterine tumour was found to have dimi-

nished very much in size and firmness. The portions of tumour removed from the right side had lost their vitality; while some of those taken from the left side looked like living organized tissue, and were manifestly of a fibrous character. Little or no hemorrhage occurred.

Immediately after the operation, wine and camphor were administered, hot applications made to the feet and legs, and more clothing thrown over the patient to relieve her of a nervous chill, out of which she gradually passed in the course of half an hour.

We visited her two hours after. Reaction had come on rapidly, the pulse was 130, and the skin and tongue were dry. This excitement subsided in a few hours on the use of ice-water, and her pulse settled down to about 100, being open and full. Having in the evening complained of a severe burning pain in the back, an injection of flaxseed tea and laudanum was given with decided relief, and she passed a tolerably comfortable night, getting short naps.

So soon as she had passed the period of excitement resulting from the operation, she was placed upon the use of bark and the mineral acids, and good, wholesome, nutritious diet. The tonic contraction of the uterus was sustained by ergot, and the fetid discharge which followed for about two weeks was corrected by injections, per vaginam, of a solution of the hypochlorite of lime. With this discharge, small lumps and shreds of dead tissue came away.

The uterus was now smaller than is found after a first parturition, and the remaining enlargement was supposed to be dependent upon the hypertrophy of its walls, which, it was anticipated, would gradually disappear.

July 4. The patient had recovered strength rapidly, was up and about, but had imprudently been exposing herself for a considerable time at an open window.

7th. Before day, Dr. Kerfoot was sent for in haste. The patient had been troubled with diarrhœa (the usual effect of ergot in her case); and, after rising several times during the night, she discovered something coming from the vagina, which she supposed was the uterus. The doctor examined her, and removed a considerable portion of the sphacelated tumour, which had been thrown down into the vagina, and was lying there loose. After removing it, he examined her again, and, alarmed at finding what he supposed to be an inverted uterus, a consultation was called at 8 o'clock A. M., an hour earlier than usual, and upon our arrival we found the patient and family in a high state of alarm. A very careful examination

was now made, and what was supposed to have been the inverted fundus of the uterus grasped by the os tincæ, proved to be a portion of organized tumour presenting in the vagina, surrounded by the os tincæ, and mainly attached to the left side of the cervix. The patient and friends having been assured of the true state of things, her apprehensions were allayed, and she passed a better day than any since her visit to Lancaster. The whole of the dead matter had been removed, no more fetid discharge followed, and the depression arising from such a source of irritation of course ceased.

It was at once decided that this tumour, which was as large as a medium-sized orange, should be removed; but preparatory to the excision, the patient was ordered to take, during the following day, a dose of ergot every four hours.

9th. At 4 P. M. Dr. K. made use of the knife, and also the crotchet, continuing the operation about an hour; and after cutting into the tumour in several directions, he desired me to examine the parts. I found the tumour itself incised in different places; but there still existed a large, broad attachment at the fundus of the uterus, running down the left side. At his request, I proceeded with the operation; and, seizing the tumour with the crotchet, I had pretty firm traction made upon it, and then severing the lateral bands with Cooper's bistoury, I made several transverse sections of the attachment to the fundus, and thus readily removed the mass. It was of a fibro-cellular structure, globular, covered with a thin, apparently recently formed membrane, with small nodules or granules upon its surface, and having an extensive base, between two and three inches broad, at which point it had been attached to the fundus uteri. This evidently was a portion of the original tumour, the shell of the organized portion on the left side, which, by the contraction of the uterus, had become aggregated and condensed into a single tumour, with all its original attachments. The amount of blood lost was from four to six ounces. There was less suffering during this than the preceding operation; but some prostration followed, from which the patient soon rallied.

On the 7th instant, after the great alarm already referred to, the patient was seized with cough, followed by copious expectoration. The pneumonic symptoms having gradually increased, a blister was applied to the chest, and all our treatment was directed to this new state of the system. During this period, a recumbent posture always induced incessant cough, while an elevated position afforded comparative relief. The pulse became more and more frequent and

feeble, and respiration more accelerated, while expectoration diminished. On the 12th instant, the lower part of the left chest was noticed to be enlarged, over which there was drum-like resonance on percussion, absence of the respiratory sound, and most perfect metallic tinkling corresponding with the inspirations. The disease progressed, and the patient died at 3 o'clock A.M. of the 16th.

An examination of the body was made after death. The viscera of the thorax, abdomen, and pelvis were examined, and all were perfectly healthy in appearance except the lungs. The lower lobes of both lungs, and a portion of the adjacent lungs, were in a very high state of inflammation. The disease in the left lung seemed to be more advanced than that on the right; in the latter, the vessels were filled with cylinders or plugs of fibrin. The whole pulmonary tissue seemed to be affected. It presented a vermilion colour, which greatly contrasted with the grayish colour of the more healthy upper portions. On making incisions into the diseased parts, an immense quantity of reddish, purulent, frothy serum flowed out, amounting to about one quart. The diseased tissue was more easily torn than the healthy, and crepitation was absent, except by very deep pressure, and then scarcely perceptible. In other parts, the pulmonary parenchyma was dry. An old adhesion of the pleura existed in the lower part of the left side. Notwithstanding the symptoms of pneumothorax and perforation of the left lung strongly existed during life, no evidences of them were found in the examination after death, and yet the peculiar resonance and distension existed immediately before the body was opened. Neither was the stomach so much distended as to account for it, although it appeared to be the only thing which could explain the resonance. Upon turning up the sternum to examine the chest, a small quantity of brownish pus was discovered lodged under its upper extremity.

The viscera of the abdomen and pelvis were remarkably healthy. The uterus was entirely within the cavity of the pelvis, about four or five inches in diameter, free from adhesions, of a white flesh colour externally, and was *in situ* with its ovaries perfectly healthy. Its external surface was uniformly smooth and even. Its wall varied from half an inch to over one inch in thickness; of a dense structure, whitish, and appeared normally hypertrophied. The os tincæ was smooth and even, excepting on the right side there seemed to be a little excavation-like omission in its extremity. The interior of the uterus was free from inflammation. The remains of the pedicle of the last tumour, partly sphacelated, was recognized upon its

fundus, and there was attached to the anterior part above another small tumour of the same character, and the size of a large hen's egg. The base of this tumour ran into the pedicle of the last, and it was evident that, like the last, this was a remainder of the original shell, condensed into a globular form by the contraction of the uterus. There was no distinct mucous membrane covering it. The same smooth passage, opposite the right acetabulum, was still very evident, and this was the only portion covered by mucous membrane, and free from adhesions. The remains of the tumour were closely attached to the muscular tissue, indicating that the tumour had its origin under the mucous coat.

The original tumour had existed for three years. In the month of January preceding the operation, by means of ergot, a large quantity of hydatids had been discharged, but notwithstanding this the tumour had still remained. Menstruation had been regular, with only slight menorrhagia, and health tolerably good. She was married and had had children.

Remarks.—The above case is presented in the same language in which it was recorded in the year 1845, at the time I was in attendance upon it. I had hoped that Dr. Kerfoot would have published it soon after its occurrence, and with that expectation I gave him a copy of my notes. It has not been done, and as he has been taken from his sphere of usefulness in this life, I feel bound, by its own importance, as well as by its relation to the cases which follow, to give it publicity. The complete success attending the whole course of treatment fully disproves the position, hitherto esteemed as an axiom by surgeons of authority, that polypus of the uterus cannot be subjected to operative measures until it has escaped from the uterine cavity.

It is much to be regretted that the exposure on the 4th, and the great alarm on the 7th, interfered with the recovery of the patient, by establishing a fatal disease in the lungs, at the very moment when the patient herself, her friends, and the surgeons, were congratulating themselves on the successful issue of this unique case.

CASE II.—*Mrs. J. M., aged 49 years ; tumour intra-mural, having been developed in the posterior wall of the uterus, and expanding that wall into a cyst inclosing it ; the whole tumour removed ; supposed weight four or five pounds ; recovered.*

Mrs. J. M., aged 49 years, resided in Harrison County, Virginia,

left home on the 15th of May, 1849, in her own conveyance, and arrived in Philadelphia May 28, for the purpose of consulting me in reference to a tumour of the uterus. She gave the following history of herself:—

She commenced menstruating at 14 years of age, and continued to be regular afterwards, although generally the discharge was rather copious, and always attended with pain. She married when 18 years old, and had four living children and one miscarriage. Her last child is 23 years old. She nursed all her children, the last one for four or five years, when it weaned itself. Menstruation was not suspended by lactation. After the birth of her last child, the menstrual fluid was occasionally clotted during the first and second days, but not afterwards. Before marriage, for several years, she had leucorrhœa. In 1844, she observed an “inward weakness,” with a bearing-down sensation in the groins, hips, thighs, and across the lower part of the body, which continued to distress her for about one year. During this time the fatigue of over-exertion was intolerable, and she was forced to get assistance in her household duties. If she was on her feet all day, she would be seized at evening with very severe pain, which always lasted until she assumed a recumbent posture. She described the pain as if something in the left side wanted to break. The pain returned for several days, and then there would be an interval of some days’ ease. After this, she discovered a hard smooth tumour, in the left iliac region, as large as a hen’s egg. She could not seize hold of it, but could pass her hand in above it, though not below it, nor readily between it and the hip-bone. When lying on the opposite or right side, the bowels would fall towards the declining side, but not the tumour—it seemed to be fixed to the hip-bone. At this time menstruation was exceedingly painful and copious—there was flooding, escape of large clots, and very great prostration. The first attack of flooding was at a menstrual period, and continued copiously for fourteen days, after which, there was a weeping until the next period, when hemorrhage again occurred, and this was renewed at every menstrual period for five or six months. She has greatly emaciated, in consequence, she supposes, of the necessary confinement, as she always rapidly lost weight under such circumstances, and rapidly increased again when about.

Before discovering the tumour she was troubled with great distress and confusion in the head, but which did not amount to pain. This has diminished, though sometimes it gets dark before her eyes, like

the impression left after looking at the sun, particularly while engaged in sewing steadily.

The tumour rapidly increased for twelve months. During this time menstruation was regular, although she occasionally had severe pain, resembling labour-pains, accompanied with sick stomach, vomiting, &c.

In the spring of 1848, her health being very bad, her physicians ordered her to travel, and she started for Lynchburg, Va., a distance of two hundred and fifty miles. The first three days she travelled without much change in her health; the fourth day she suffered much from pain, which so increased by the fifth night that she was forced to stop near Staunton, where she became exceedingly ill with rigors, cramps, and vomiting, resembling cholera. She was conveyed to Staunton on a bed, where she received the attention of an eminent physician. Her menses came on with great pain and sickness, and continued for a week or ten days, accompanied with sinking spells and every appearance of death. In about seven or eight days she began to recover, and on the 20th of May started for home, still very feeble, but regained strength daily afterwards, and made the journey in eight days.

She decided to leave for Philadelphia on the 1st of September, 1848. A few days before, however, she again became extremely ill. Her physician, Dr. Austin, first considered this an attack of bilious fever, complicated with uterine disease, but afterwards concluded that the peculiar symptoms originated from the severity of the pain. He supposed that the tumour could be expelled, and for this purpose he gave her two doses of medicine in vinegar, which induced excessive pain, and brought down a tumour, which he said was in the walls of the uterus. He remarked at the time that any physician who had not known her situation, would have supposed that she was about bringing forth a child, the presenting part so much resembled a child's head. The os uteri, all this time, never opened. The pain commenced about midnight and arrived at its height about daylight in the morning. He saw her about 8 A. M. and endeavoured to control the suffering by opium. About 2 o'clock the same day, she sunk, having every appearance of death, but by stimulating frictions she again revived. The doctor, believing that some of the symptoms were traceable to constipation, gave croton oil, which operated suddenly in the course of five minutes. Next day the pain left the tumour, and attacked the left leg, causing excruciating agony. The leg swelled very much as far as the foot—it was white, and did not pit on pres-

sure. Dr. A. called it milk-leg. She was long confined with it, and had not yet recovered when I first saw her. The leg was swelled badly for about three months, from which time there was much less pain in the tumour. Immediately after this attack, menstruation was suspended for three periods, then became regular, and, at the same time, the swelling disappeared slowly.

Sometimes there was difficulty in passing urine. It was attended with pain, burning, and a sense of obstruction. Sometimes while flowing in a stream, it stopped suddenly as if obstructed by a dense body, and then by elevating the tumour with the hand it again flowed. At times the urine was small in quantity and high coloured, containing a clayey sediment. She took a great deal of nitre, and with relief. Her bowels were regular.

Besides the above history of her health she had a severe attack of fever sixteen years since, and she had also been salivated three or four times. From the time of marriage she had had cough in the morning, attended with the expectoration of a frothy mucus. The cough latterly was not so troublesome. Her rest was very much disturbed, sometimes not sleeping at all during the night. She, however, averages about four hours' sleep.

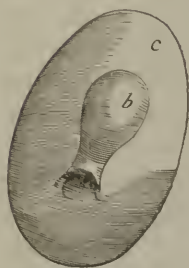
Mrs. M., in passing through Lancaster on her journey to Philadelphia, called to see my brother, Dr. J. L. Atlee, who examined her, and wrote to me as follows: "I made an examination last night without an assistant, and repeated it to-day, assisted by Dr. Parry. . . . The fundus of the tumour now extends, especially in the morning, as high as, and to the left of the umbilicus; it is partially movable; there is no apparent fluctuation. The os tincæ is very high up behind, and rather *above* the symphysis pubis, and the pelvis is filled with the round-shaped tumour, resembling the fœtal head covered by the uterus. The os is oval-shaped, the long diameter extending laterally. Before menstruation there is always an *enlargement* of the tumour, and a subsidence afterwards. It has not increased much for the last six months. The examination per rectum discloses nothing new, the tumour being nearly central in the pelvis, although inclining to the left side above the pelvis. I introduced a uterine sound, Simpson's, $3\frac{7}{8}$ inches. It passed up that distance above the symphysis on the anterior face, and could be felt on the most prominent portion of the tumour, and near the fundus of the tumour. The sound could not readily be turned when in the cavity, but by pretty strong torsion of the handle, the bulb of the sound could be felt in the mass by the fingers externally. Dr. Parry, by moving the tumour

from side to side, readily produced a corresponding motion of the sound in my hands, and to apparently the same extent. I do not know that I need enter into any farther details of the case, but will state that I am of opinion that it is a fibrous tumour developed in the *posterior wall* of the uterus, and inclining a little to the left side. Were it *intra-uterine*, a freer motion would be given to the sound, which is now limited to the real or normal cavity, slightly elongated by the enlargement of the posterior wall. . . . Having formed this opinion, I told them that I thought an operation for the *immediate removal* of the tumour would not be advisable; that, after menstruation ceased, there might be no farther development of it; that she should keep her bowels regular, and take as much exercise as her strength would permit, her health having already been very much benefited by her journey."

May 28. I examined the patient. When on her back very little protuberance of the tumour was observed. The walls of the abdomen were very much loaded with fat, and a round, smooth, hard, unyielding tumour could be felt on the left side, extending up from behind the pubis to the umbilicus, filling the left iliac region and most of the hypogastric, extending towards the right, beyond the linea alba. It is movable, but not readily. Per vaginam the tumour could also easily be perceived, projecting into the pelvis like the head of a child passing the superior strait, and having much the same shape and feel as it has when covered by dense membranes, free of liquor amnii. The os uteri can be felt very high up, about one inch above the symphysis, and is reached with difficulty. The front lip of the os appears to be free, and can be raised upon the top of the index-finger, but coalesces, without much margin, into the anterior portion of the vagina, while the posterior lip has no margin, but appears, in connection with its part of the cervix, to be bulged and stretched over the tumour, and continued into the posterior wall of the vagina, which forms a covering for the tumour. The tumour can also be readily felt through the rectum, and seems to occupy, with its lower portion, a position between the rectum and the vagina. A hand placed on the abdomen, and a finger in the vagina, can play the tumour between them. Simpson's sound, passed into the uterus, enters to the distance of two and a half inches in front of the tumour, and can be felt through the walls of the abdomen. It is moved by every motion of the tumour. A sound passed into the bladder takes a direction to the right side. The speculum indicates a healthy con-

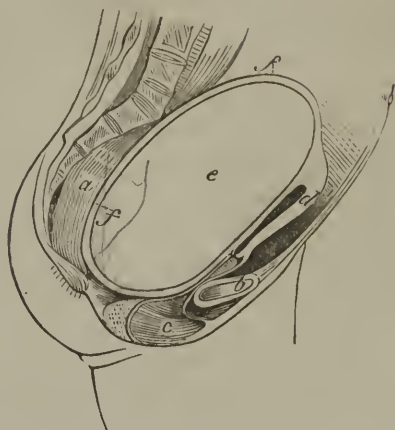
dition of the vagina. The accompanying drawings, figures 1 and 2, represent the position of the parts.

Fig. 1.



b. Uterus. *c.* Tumour.

Fig. 2.



a. Rectum. *b.* Pubis. *c.* Vagina. *d.* Uterus. *e.* Tumour. *f. f.* Posterior wall of the uterus expanded by tumour.

June 6. I examined Mrs. M. again in company with Drs. E. A. Atlee and Grant, who coincided in opinion with me respecting the character of the case. I now proposed an operation to these gentlemen, of the following character: placing the patient first fully under the influence of ergot, and then passing a bistoury into the cavity of the uterus about one and a half inches, I would cut down upon and into the tumour, slitting open the cervix and os uteri, extending the incision downwards through the posterior wall of the vagina about one inch and a half below the os tincæ. After making this section, I would attempt to detach the uterine envelop from the tumour by means of the point of the finger and otherwise, and thus gradually endeavour to enucleate the whole mass from its bed, and deliver it per vaginam.

My associates approving of this proposition, and it having been readily assented to by the patient and her husband, I accordingly ordered three grains of ergot every two hours. Four doses having been administered without effect, the quantity was doubled and continued until next morning.

7th. There having been no action from the ergot, fifteen grains were ordered every two hours, which produced no other effect than pain and swelling in the left leg. The limb was now placed in a

bandage. Wine of ergot in drachm doses was substituted, continued until 10 o'clock P. M., and ordered to be resumed early the following morning.

8th. As there now seemed no probability of the action of the ergot in any way than by pain in the leg, which no doubt was induced by uterine contraction, I determined to proceed with the operation.

At 9 A. M. the patient having been placed with her hips on the edge of the bed, assisted by Professor Grant, I passed the index-finger of the left hand into the os tincæ, on which I passed the blade of a long bistoury into the interior of the uterus to the distance of an inch and a half. Dr. Grant at the same time supported the tumour with his hand placed upon the abdomen. I now turned the edge of the knife directly back against the tumour, and cut down upon it, drawing the instrument out of the uterus, and cutting into the tumour as I withdrew the knife. As I cut, the parts returned a grating sound, manifesting the existence of a fibrous tumour, which I think was incised to the depth of three-fourths of an inch. I now ordered one drachm of wine of ergot every half hour, and it was continued until 10 o'clock P. M., without any decided action upon the uterus. Towards evening the limb was less swelled. During the day I made two or three efforts to detach the cyst with the point of the finger, but the attachments were too strong to admit of it. The incision was followed by the loss of not more than half an ounce of blood, and was accompanied with very little pain. At 10 P. M. the ergot was discontinued, and ordered to be resumed early in the morning.

9th. 10½ A. M. Ergot having been administered every thirty and fifteen minutes, I severed half an inch of the posterior border of the cyst from the surface of the tumour, which was sealed to it by very strong adhesions. Very little blood followed. Before this, she complained of pain in the small of the back with some shooting pain through the tumour, which she had frequently experienced before. About 3½ P. M. I repeated this operation, cutting loose about one inch of the covering of the tumour, and about half an ounce of blood was lost. She suffered most of the day a good deal from pain in the back, and in consequence the ergot was repeated in the afternoon only every two hours. Ordered at bedtime 30 drops of laudanum.

10th. Discontinued the ergot. Operated twice to-day, detaching more of the cyst, particularly in front, and also passed the knife into the substance of the tumour. It is evidently softening where the covering has been detached, and the top of the tumour can be

brought down one inch below the umbilicus—it is more movable than before. The last operations were more painful than the first.

11th. No ergot administered. Recommencing the operation, I seized the edge of the cyst with a blunt-hook, and brought the tumour down an inch and a half below the umbilicus. A string was now attached to the handle of the hook, and passed through an ivory speculum, which was introduced up to the tumour over the handle of the hook. We were thus, by means of a light, able to inspect the tumour for the first time, and found it degenerating.

12th. Hooked the cyst again and introduced a Ricord speculum, but found it inconvenient to operate through it. The tumour was softening and the size diminishing. I cut it up to some extent, and removed several small portions. They were fibrous and had lost vitality. A teaspoonful of wine of ergot was again ordered three times a day. After taking two doses, the patient complained of bearing-down pains, and the effects were more decided than heretofore.

14th. Ergot was continued yesterday, but with less effect. I operated again; and in making a section on the right side through a thick band, I came upon a plain surface over which I could pass the point of my index-finger. On the left side and in front, I severed a number of additional bands, and passed the knife higher up than before, so that Dr. Grant could readily distinguish the instrument through the walls of the abdomen.

17th. Incised the tumour through its centre to within about one inch and a half of the fundus.

23d. Gave ergot with some slight effect, and afterwards administered, by inhaling, my mixture of chloroform and ether; under the influence of which I operated again satisfactorily. The tumour has evidently diminished a good deal on the right side.

25th. The patient was menstruating, and with this was a discharge of degenerated portions of the tumour. When the tumour was pressed upon externally matter flowed from the vagina.

29th. I was sent for early in the morning to see Mrs. M. She was seized with a nervous tremor, or chill—a state of congestion, indicated by coldness of the surface, blue lips, and great distress at the epigastrium. I immediately applied sinapisms to the extremities and stomach, and gave morphia; the tremor subsided in about an hour. This was followed by some febrile excitement, and considerable distress of stomach, with occasional vomiting, which continued all day and the succeeding night. The patient attributed this attack

to constipation, and said it was similar to, though less severe than the attack at Lynchburg.

30th. The sickness and distress of stomach still continuing, Mrs. M. took two cathartic pills, which were followed by a dose of oil and laudanum in the evening. Two or three evacuations were induced with decided relief. She regained her ordinary condition in two or three days.

July 5. Another operation was performed under the influence of chloroform. Several firm adhesions, between the front part of the tumour and the uterus, were severed; the vaginal section of the cyst was extended towards the rectum, and, with the point of the index-finger, the tumour was detached or enucleated from its covering as far as could be reached. The tumour was now comparatively soft, and presented to the touch a sensation very much like that of a polypus in the interior of the uterus; the whole lower portion being separated from its attachments. More bleeding followed this than previous operations. There were also more bearing down and soreness in the tumour; to relieve which a dose of laudanum was given. Ten grains of powdered ergot were ordered every two hours.

6th. The patient had rather a bad night. The ergot and some raspberries, which she imprudently ate last evening, distressed her stomach and bowels considerably; pain continuing all day, and ending in bilious diarrhœa at evening.

7th. She had four or five copious yellow, thin discharges last night and this morning, which weakened her a good deal. The stomach was still much distressed; and the attack assumed the character of cholera morbus, which excited the patient very much, from the fact that cholera asphyxia was prevailing in the city. A sinapism to the stomach with an infusion of peppermint taken in small quantities, and iced, quieted the stomach, so that at 10 o'clock P. M. it tolerated a dose of castor-oil and laudanum.

8th. The patient slept well during the night. The oil operated freely, with entire relief to all the symptoms. In the evening she was quite well.

9th. The patient was very well. Examined per vaginam and found some agglutination between the tumour and the sac where the separation had last been made—but this was soon destroyed by means of the index-finger.

11th. Examined again while under the influence of chloroform. Passed the finger around the tumour, breaking up all the adhesions

within reach. This was followed by considerable discharge of an offensive character, with small pieces of broken-up coagula.

13th. Offensive discharge continues.

18th. The patient has been regaining health rapidly, the tumour has diminished in size, and the offensive discharge continued. She felt well enough to set out for her home; and as I did not intend to carry operative measures any farther, and as she had a great dread of cholera, she left for Virginia.

I received a letter from her husband after their arrival at Lynchburg, as follows: "We arrived here in 13 days, a distance of 348 miles. For the first 100 miles, Mrs. M. seemed to be very feeble, had no appetite, her legs swelled very much every day; but the swelling would go down at night. After we passed Baltimore, she began to improve, but complained a good deal of soreness about the tumour. Since we arrived here, say for three days only, she seems to improve rapidly. She is in much better health now than she has been for three years; walked at least 300 yards to a spring and back yesterday; the lameness has left her leg; no swelling in her legs of notice; she has a fine appetite; seems to be in fine spirits; gets up out of her chair and walks about the house like a girl of sixteen. The tumour seems near the same size as when we left; I think at this time it seems to be on the decrease, and seems very low down. On the whole we are in spirits respecting the case; we are yet afraid to say she is well, though we almost believe she is. We can write more satisfactorily to you by the time we get home; she is improving in appearance as fast as any one I ever saw."

December 30, 1849. The following is an extract of a letter of this date written from Flowerdale, Harrison County, Virginia: "I have delayed writing until the present in order to give you some definite information in regard to Mrs. M.

"We resumed our journey homeward, from Lynchburg, some 250 miles farther. During the progress of the journey she continued to improve, had a good appetite, could get in and out of the carriage easily, and would walk frequently a considerable distance. On arriving home, we found our only daughter just recovering from a severe spell of sickness. This had a tendency to depress her spirits for a short time. With the speedy recovery of the daughter, however, she commenced recovering also. The tumour gradually decreased, and she became in the perfect enjoyment of health. She was so much restored by the 15th of October, I thought it safe to leave her upon business. I returned on the 27th of last month, and am most happy

to say to you that she is entirely recovered, and in better health than she has been for the last fifteen years. The tumour is entirely gone, to all appearance, and she has good use of all her limbs; can ride on horseback, &c."

1853. Mr. M. has visited Philadelphia repeatedly since the period described, and says his wife continues in the most perfect health, there being not the least vestige of the tumour.

Remarks.—It will be observed that in the above case the tumour was developed in the posterior wall of the uterus, having no connection with its cavity—a state of things that precluded all idea of its accessibility to the ligature or the knife on any established plan or rule of surgery applicable to uterine tumours. It will also be observed that although a long and deep section of the tumour and its coating was made, no hemorrhage followed, notwithstanding severe floodings had previously occurred. The operation attempted was that of enucleation, but the greater portion of the mass gradually wasted away by a species of decomposition. The phlegmasia dolens likewise disappeared as the tumour diminished in size.

CASE III.—*Mrs. J. McB—, aged 30 years; tumour intra-uterine; os tincæ thick and closed; whole tumour removed; supposed weight six or seven pounds; recovered. Subsequent reproduction of the tumour; again removed; recovered.*

June 18, 1849. I examined Mrs. McB—, of Carlisle, Pa., aged about 30 years, who had a large tumour in the abdomen. It occupied the centre of the abdomen, and extended above the umbilicus, inclining with its fundus to the right side. It was quite firm, semi-elastic, not fluctuating, and sore to pressure over the right superior part. Per vaginam; the cervix uteri was found to be expanded at its upper part, the os tincæ thick and ring-like, and of scirrhus hardness, with an opening that would receive merely the extreme point of the index-finger. There was no tenderness in the parts. With the speculum, the os tincæ could be readily seen, but it was quite free from abrasion, or any peculiar marks of disease.

19th. I examined the patient again, using the uterine sound, which I could pass between the tumour and walls of the uterus in almost every direction up as far as the fundus. The point of the sound could be felt through the parietes of the abdomen above the umbilicus. While exploring with the sound, it seemed as if loose adhesions between the two surfaces were giving way. The pedicle ap-

peared to be near the fundus on the right side, as the sound could not be made to pass up in that direction. After finishing the exploration with the sound, I attempted to force the index-finger through the os uteri into the interior of the uterus by a kind of boring operation, while fixing the tumour by external pressure on the abdomen. By continued effort I succeeded in introducing it up to the second joint, when I felt the tumour against the end of the finger. The os tinea was very rigid and thick, and grasped the finger very tightly, while the force required to introduce it gave the patient considerable pain.

This examination was followed by slight pain and very little bleeding. The diagnosis was polypus of the uterus.

28th. Having proposed to place the patient under the influence of ergot, and when the contractions of the uterus were established, to cut the os uteri to enable the tumour to descend, I ordered that she should take 10 grs. of powdered ergot, in infusion, every two hours until evening, and then to omit until morning.

30th. The ergot acted effectually, and, as tested by an examination per vaginam, was found to make an impression upon the cervix. The whole mass descended lower in the pelvis and its fundus was not so high in the abdomen.

July 1. The ergot continued to act powerfully. The abdominal tumour was three or four inches below its original level, and more globular and firm. It seems as if the fundus had been tilted outwards in order to enable the lower portion to pass into the superior strait of the pelvis. The tumour can also be more readily detected through the os uteri.

In the presence of Dr. Grant, with the long bistoury I nicked the os uteri quite around, which caused it to relax to such an extent that the whole index-finger could be introduced and passed easily round the entire lower portion of the tumour. It had a soft and quite elastic, semi-fluctuating feel.

2d. The ergot still acted finely; the cervix was nearly expanded, and the os uteri exhibited an opening about one inch and a quarter in diameter. The tumour was much lower in the pelvis and abdomen. The os uteri being still firm, I cut it more extensively than at first, so that it yielded and expanded to a much greater extent. The use of the ergot was ordered to be discontinued after midday until the morning following.

This evening, the tumour was found to have descended more and

more, and was pressing upon the neck of the bladder so as to embarrass the passage of urine.

3d. The os tincæ was still dilating, and urination was difficult. Three 10-grain doses of ergot were given during the day. Ordered castor-oil, which operated well.

4th. After taking 10 grs. of ergot, very violent contractions of the uterus were induced, so that it required to be controlled by morphia. The os is still dilating, and the tumour is beginning to press against the perineum. It is about one inch and a half from the os externum.

5th. This morning, I passed the sound into the uterus with the same result as before. I again slightly nicked the os tincæ. In the afternoon the os was more dilatable, capable of being stretched to three or four inches in diameter. Ordered but one-third the former dose of ergot every two hours, in consequence of the violent action the previous day.

6th. This morning, I endeavoured to grasp the tumour by Denman's small obstetric forceps. They were readily introduced, but could not be locked easily, the difficulty appearing to depend principally upon the os tincæ not having been sufficiently dilated. They were also too small to grasp the tumour, and too straight to apply to it above the brim of the pelvis.

In the afternoon, assisted by Dr. Grant, I attempted the use of Seabold's large forceps. The blades were introduced; for the same reason there was also a difficulty in locking them, but finally I succeeded; then placing the patient under the influence of chloroform, I made gentle and continued traction in order to get the tumour down through the superior strait, but it was too large to admit this. After endeavouring for some time to accomplish its delivery in this way I withdrew the forceps. Upon examining now, it was found that a considerable change had occurred in the tumour; the pressure of the forceps had very much softened it. I now passed in the two blades of Smellie's crotchet, and after the same difficulty, locked them, sinking their points into the substance of the tumour. On making traction the tumour tore under the pressure of the instrument, which of course lost its purchase, so that I had to withdraw it. I now employed only one of the blades, passing it up very high upon the tumour, particularly on the left side opposite the pedicle, and, sinking it deeply into its substance, made careful traction. The tumour again gave way; but, aided by the strong pressure made by Dr. Grant upon the hypogastrium, at the same time opposing the

point of the instrument with the left index-finger in the uterus, I succeeded in extracting a considerable portion of the mass through the os externum, where I held it to prevent its retreat into the vagina. Now, passing the crotchet repeatedly into the uterus on all its sides, I continued to bring down portions of the tumour, until I finally succeeded in detaching about one half the entire mass. The portion remaining in the uterus I afterwards divided considerably with the hooked end of the crotchet, aided by a hook contrived for the purpose. This was done with the view of disorganizing the remainder of the tumour, and inducing it to slough away. During the whole operation the patient was kept under the influence of anæsthetics. The external bulk was very much diminished. Not more than two or three ounces of blood were lost during the operation, and no shock followed it. Ordered a small dose of ergot every two hours.

7th. A large quantity of bloody water followed the operation yesterday, sufficient to wet ten or twelve napkins; but it had not the effect to debilitate the patient. She complained of slight soreness over the hypogastric region; for the relief of which I ordered cold-water compresses, under which treatment both it and the discharge diminished. At evening, I examined the patient, and found the balance of the tumour descending into the vagina. Flakes of flesh were discharged with matter from the uterus. The patient was quite cheerful.

9th. The discharge had now become fetid, showing a decomposing process in the tumour; and I removed another large portion, the masses being partially putrid, having the putrid odor. After this, the uterus contracted to the size usually observed after first parturition. The loss of blood did not exceed two ounces. Chloroform was administered with good effect. There still remained membranous and tough portions of the tumour, probably the remains of the pedicle, and which could not be torn away. Some of them, while held on the stretch with the forceps, were cut away with the bistoury.

12th. The uterine tumour had gradually diminished to the size of a large orange, and could be felt at the top of the pubis. Considerable discharge had occurred since the last operation, accompanied with shreds of degenerated tissue of a fetid odor. To-day, after giving chloroform, I removed several small offensive portions, and broke up the balance of the pedicle. I imagined the present apparent size of the pubic tumour resulted more from the thickened walls of the uterus than from anything within its cavity.

18th. The patient had improved in strength rapidly. She rode

out on the 17th, and now left in the cars for Carlisle. She had been taking carbonate of iron for several days, and was ordered to continue it after her return home.

August 20, 1849. I received a letter from her husband, who says: "We are getting along as well as could be expected from so severe an operation. A few days after we left you, there was a very severe pain in the right groin, extending over the place where the tumour was fast, and as far up as the ribs. We were a little afraid of the consequences. Different things were made use of for its removal, but to no effect." She was advised "to bathe twice every day, which in the course of a few days relieved her entirely of the pain. Since that, she has been more hearty than for seven or eight years. Her appetite is very good, and she can go up and down stairs without sitting down as before," &c. &c.

Some time after this Mr. M'B. was in the city, and stated that his wife was enjoying excellent health. Menstruation had occurred quite regularly.

The following are some of the features of the history of the above case. When about thirteen years old she first menstruated. Soon after she had an attack of intermittent fever, which continued about a year, during which there was an entire suspension of the menses. After this, menstruation returned and remained regular up to the year 1839, after which the discharge assumed a black appearance. For years before, however, she was weak and delicate. She never suffered from dysmenorrhœa or leucorrhœa. In 1842, she was seized with severe pain across the kidneys, and in the head and face, accompanied with some derangement of menstruation. The patient thinks that the uterine disease commenced at this time. No treatment relieved her. She was married on the 28th of May, 1844, with the hope of regaining her health. She was, however, disappointed. On the 4th of July succeeding, she was seized with excessive flooding, accompanied with large coagula. After this, she rapidly lost health and strength; had repeated floodings, particularly at the menstrual periods, and continued to suffer great pain in the back, head, and jaws. On the 12th of June, 1846, a very acute pain seized her in the lower part of the abdomen. She was at this time, under the care of a "Sugar Doctor," as Mr. M'B. called him. Small portions of decayed flesh came away in the discharge from the uterus, giving out a very offensive odour. This continued until the morning of the 20th of June, when the passage of the urine was entirely arrested. The "homœopathic" practitioner was sent for and examined the patient;

he pronounced her to be in a state of parturition, and that a child was about to be born! He applied the forceps, as he supposed, to the head, and dragged upon the subject until 4 o'clock P. M., without being able to accomplish the delivery. By this time, the patient and friends having lost all confidence in the operator, sent for Dr. C. of Carlisle, an aged and excellent physician. On the announcement of Dr. C.'s arrival, the SUGAR DOCTOR made a precipitate retreat, *not even taking time to remove the forceps from the head of the child in the pelvis!!* Dr. C. now took charge of the case, removed the instruments, and found the pelvis occupied with a very offensive and putrid polypus, which he removed in small pieces in the course of half an hour. Under Dr. C.'s care she gradually recovered pretty well, had very little flooding, and regained strength tolerably well. In the autumn of 1848 she had a return of the old symptoms, and the abdomen rapidly enlarged. The sanguineous discharge was so great that she became perfectly anæmic; and when brought to Philadelphia, she seemed quite drained of blood; the skin having that peculiar straw-coloured and blanched condition so often observed in malignant and other chronic diseases that interfere with the functions of nutrition and sanguification.

The following is the copy of a letter received from Dr. H. Hinckley, an intelligent physician of Carlisle, in reference to the above case.

“CARLISLE, Nov. 29, 1851.

“WASHINGTON L. ATLEE, M. D., PHILADELPHIA.

“DEAR SIR—I have a patient just come under my notice, upon whom you operated for uterine tumour some three years since—Mrs. R. M'B. I shall be under an obligation to you, if you will do me the favour to inform me of what nature the tumour was, whether fibrous, scirrhus, or polypus; what were its relations to the womb, and in what manner you removed it; also to what extent it had gone. Please state also if the operation was accompanied with much hemorrhage. She is now suffering a good deal from the presence of a tumour, intra-uterine, I believe. I have not made a special examination, intending to do so to-morrow, having only seen her this evening. I am apprehensive she will have to incur another operation, but am desirous to hear from you before I make a final diagnosis or give the patient advice. What information you may be pleased to give relative to the tumour removed by yourself will materially aid me in an examination.

“With respect, I remain, &c.,

“H. HINCKLEY.”

Dr. Hinckley wrote again as follows, Dec. 7, 1851: "Yours was duly received in answer to my interrogatories, for which I am obliged. On the 30th ult. I made an examination, and discovered what I supposed was a fibrous tumour of the uterus. The os was dilated to the size of a dollar, soft and expanding—bearing-down pains present and very severe. Concluded if possible to operate by ligature. On the 1st instant I made nearly straight two male silver catheters, made a hole in the end of each, and passed a strong silk ligature through them, bringing the free ends out next the hand. Ergot was administered two days in succession, but the pain was so severe that I had to administer opium freely, and stopped the ergot. On Monday I attempted to pass the ligature. The os much dilated, soft, and the tumour protruding somewhat; could not succeed, on account of finding it attached by at least its upper half to the uterine walls. On Friday, proceeded to operate by avulsion, tearing up the tumour and bringing it away with a retractor or extractor [obstetrical], sharp only on the inside of the hook. The patient was under the influence of chloroform. I succeeded in getting all of the tumour except a few shreds of the attaching membrane, though it took me two hours and more, the womb sometimes contracting forcibly, obliging me to desist for the time being. I did not carry the chloroform to its full effect, but lulled the pain. Four hours after the operation, saw the patient—pulse 140. Irritability of stomach very great—vomiting—prostration great, though not from hemorrhage, as there was little or none from the operation, and none previously. I attributed some of the symptoms to the long use of chloroform. Ordered ice to be given in small pieces, thirst being intolerable—mustard to epigastrium—warm bricks to feet and warm clothes to vulva; aqua calcis and milk. The patient passed rather a restless night—somewhat better in the morning—pulse 120—irritability still present, being perfectly free from pain, however. Continued lime-water and milk—ordered injections per vaginam of warm opiate water to wash out debris, &c. Patient somewhat stronger in voice, and anxious to eat—ordered barley-water, a few spoonfuls. Being called to the country some distance, I did not see her the following evening. This (Sunday) morning I find the patient improving—pulse 80—irritability of stomach lessened, and symptoms generally better. Ordered a small quantity of chicken-water, with a cracker. The womb has been well washed out with injections, and there appears no danger now from metritis; but I can hardly pronounce her yet safe."

Dr. Hinckley farther writes, under date of December 27: "I am pleased to inform you that the result has been favourable, and the patient is fast regaining health and strength. There was some slight effusion or rather œdema of the lower extremities *before* the operation, but since, it has disappeared and there seems now to be no indication of its reappearance."

Remarks.—This case is interesting in several points of view. It shows that in some cases there is a great tendency in the disease to return, as there was a reproduction of the tumour twice—once after it was thrown off by nature, and again after it was removed by the knife. It also shows that an intra-uterine tumour of large size may be expelled by the uterus, may degenerate and lose its vitality, and thus be destroyed by a natural process unaided by art. It also encourages us to adopt curative measures, even in extreme cases of anæmia, and when there are strongly marked indications of a malignant taint of the system; as, after the operation, the health was restored, and the healthy functions of the uterus returned. Not the least interesting point in the above case is, that it very conclusively proves, what has been denied, that ergot will most effectually excite the muscular action of the uterus, not only while in labour, but also in an unimpregnated and tranquil state.

CASE IV.—*Miss M. T—, thirty-three years old; tumour intra-uterine, its entire surface intimately incorporated with the interior of the uterus; its removal attempted by gastrotomy, which failed; subsequent recovery, and an attempt made to remove it per vias naturales; death from erysipelas.*

Miss M. T—, aged thirty-three years, of Buffalo, New York, came to Philadelphia May 12, 1849, to consult me about a tumour in the abdomen. The patient gave the following history of her case. Seven years ago she had an attack of typhus fever, which confined her six or eight weeks. Eighteen months after, she had what her physician called yellow fever, and she has had several slighter attacks of fever since. Two years before discovering the tumour, she had a cutaneous eruption, which lasted three or four weeks, and was treated by Dr. T—, of Buffalo, with bichloride of mercury and sarsaparilla internally, and ointment of red precipitate externally. The catamenia made their appearance at sixteen years of age, and were painful until the period of the attack of typhus fever, after which they were less so; they have also been regular to the time of the

discovery of the tumour. July, 1845, she first noticed the tumour in the right side, midway between the ribs and pelvis. It was then as large as the fist; oblong in shape; the longer part projecting upwards. It seemed smooth, hard, and unyielding; was perfectly movable; could be pushed over to the linea alba; be depressed and elevated, and upon removing the pressure, it would again return to its original position. About three months after this, Dr. P——, of Providence, Rhode Island, examined the patient, while lying on her back, with her abdomen exposed. He described the tumour as decanter-shaped, with a narrow attachment to the right side of the uterus. He could play it about, and considered it an ovarian tumour. The succeeding winter, 1845–46, it grew to half the size it is now, having enlarged gradually. The following spring, 1846, it again gradually diminished to about one-third its previous size, without treatment. The next summer it again increased, and continued to do so until the latter part of the fall, when it again diminished, also without treatment. It now remained stationary until the next fall, 1847, then increased gradually to a greater bulk than ever.

In the spring of 1848, she placed herself under the professional care of Dr. S——, of the city of New York. He ordered chloride of gold and citrate of iron internally, and solution of the acetate of iron as a vaginal injection. A magnetic plaster was placed on the back, and the electro-magnet, with one pole on the abdomen and the other on the back, was repeatedly employed. This treatment was associated with cathartics of croton oil; and, during it, the flatulent distension of the epigastrium subsided, but the tumour diminished very little.

After this treatment was continued about three months, Dr. S. added Indian hemp and prussic acid. The hemp acted powerfully as a diuretic for several weeks, and the patient diminished in size. This treatment was continued uninterruptedly for six months; after which it was suspended, in consequence of the death of her physician. Dr. S. called her disease ovarian dropsy. From the fall of 1848 to the present time, there has been a gradual increase of the tumour.

March, 1849, the patient went under the charge of Dr. M——, of Albany, New York, who named her disease ovarian tumour.

Believing it to be filled with fluid, he, early in April, introduced a large-sized trocar, for the purpose of tapping it. Nothing flowed through the canula, except a teaspoonful of blood. The trocar was introduced about three inches, and it required considerable force to enter it. On putting a probe through the canula, it came against a

hard unyielding substance, jutting against the internal end of the tube. The wound healed up kindly. Dr. M., now considering the tumour to be fibrous, but still ovarian, recommended the application of caustic to the abdomen, in order to establish adhesive inflammation between the parietes and the tumour, and coetaneous ulceration—no doubt the new treatment recommended by Dr. Tilt, of London, for ovarian dropsy. The patient, however, did not undergo this treatment. After tapping, she had a slight bilious attack, for which she was attended by Dr. C——, of Cohoes, Albany County, New York, where she then resided.

In the summer of 1847, the patient had menorrhagia for about two months, with only one week's intermission, and afterwards the menstrual discharge was less in quantity. It was, however, regular, but slightly clotted, as it always had been. It was also succeeded by slight leucorrhœa. Urination and defecation were never troublesome or difficult. Until the spring of 1849, the bowels were disposed to relaxation. Sleep was broken; she dreamed a great deal; occasionally started, and did not feel refreshed in the morning; had a sensation of great fatigue, and liked to indulge in bed in the morning. The appetite was good, and she felt well after eating. The tongue was coated with a dyspeptic fur, and she was troubled with flatulency. The respiration was frequently affected; she could not, at times, get a full breath; had a frequent disposition to sigh, but could not accomplish it until she had made several attempts. She described this difficulty as a feeling of partial paralysis. A very uncomfortable feeling through the body distressed her, with considerable soreness of the tumour, particularly at its upper part. Last winter, and especially since last spring, headache had annoyed her. The pulse, when free from excitement, was ninety-five to the minute, and of good tone and volume. Auscultation discovered nothing wrong in the functions of the heart and lungs.

I have been thus particular in detailing the early history of this case, for reasons which will be explained by the result of the operation, as well as in consequence of the intelligence of the patient, whose truthfulness and accuracy I could fully confide in.

On the evening of May 12, I examined Miss T. When lying on the back, the abdomen, exposed, showed an uneven prominence. A tumour occupied the left iliac, hypogastric, umbilical, and right hypochondriac regions, part of the right lumbar, and part of the right iliac regions. Its longest diameter extended from the right hypochondrium to the left iliac region, and measured thirteen inches; its

shortest diameter cut this at right angles, and was eleven inches; across the tumour horizontally, and intersecting the umbilicus, it was twelve inches. The abdomen was resonant on percussion over the epigastrium, the left hypochondrium, and the left lumbar regions—all other parts were flat. The walls of the abdomen were considerably loaded with fat; and the lower part, inclining towards the left, opposite the most prominent part of the tumour, had its subcutaneous cellular tissue somewhat infiltrated, so as to present a doughy appearance and feel. The cicatrix made by the trocar was seen about three or four inches to the right of the umbilicus, and about one inch below it. The tumour was firm; slightly elastic; did not fluctuate; could be moved in all directions by using considerable force—the opposition to its motion depending apparently on the tightly distended abdomen, and the size of the tumour.

Examining per vaginam and per anum, the patient being on the left side, the tumour was found to occupy a large portion of the pelvis, and the uterus could not be distinguished. I was therefore impressed with the idea that the tumour was entirely uterine, and that no os tinæ was discoverable. The tumour could be slightly played between the finger in the vagina and the hand upon the abdomen. Placing the patient upon her back, however, and passing the index-finger far back, the os uteri could be detected, but the cervix uteri could not be traced; it seemed to be spread out and flattened, while the os uteri was sufficiently opened or stretched to permit the point of the index-finger to enter partially. It was only with great effort, and by pressing back as far as possible, that the index-finger could be made to reach the os tinæ.

May 13. In company with Drs. E. A. Atlee and W. R. Grant, I examined the patient again, using the sound both for the uterus and bladder. The uterine sound readily entered the patulous mouth of the womb, but would not pass up more than about an inch until the tumour was elevated by pressure externally, when it entered to the distance of two and a half inches. It took a direction towards the right side. While in the uterus, motion, communicated externally to the tumour, gave scarcely any impulse to the sound, and *vice versa*. Very little motion, however, could be made with the point of the sound in consequence of the uterus appearing to be fixed in its position. The vesical sound also took a direction towards the right side, indicating that the bladder occupied the right side of the pelvis. The patient complained of both sounds giving pain.

It will be apparent that the history of this case, compared with

the present condition of the patient, rendered the diagnosis difficult and obscure. The prominent indications of its early history were those of ovarian tumour, and the eminent surgeons, who had examined it, so considered it. It is to be regretted, however, that heretofore no examination, per vaginam and per rectum, had been made, as it is probable that its real nature would have been more readily disclosed by such an examination before it assumed so formidable a size. Apart from its history, I should have considered the tumour to be either in the cavity of the uterus, or in its walls; but, viewing it in that connection, and respecting the opinions of those gentlemen who had examined the case before, I was willing to believe it to be extra-uterine, consisting of either the right ovary, which had undergone fibrous degeneration, or a pedunculated fibrous tumour of the uterus itself; and that its extirpation by gastrotomy was possible. It was, therefore, decided that, as the patient came a considerable distance, and had an urgent desire to be relieved by an operation, the nature of which had been fully explained to her, it should be attempted on certain conditions to be presently stated.

14th. I informed the patient of the result of the examination, and of the obscurity in the diagnosis, and that, in case an operation was performed, there must be a clear understanding on her part, as well as that of her friends, that the tumour possibly could not be removed. I also told her that I would operate with the expectation of removing the tumour, but that if, upon opening the abdomen, it was found impossible to remove it without extirpating the uterus, I should not feel justified in doing that, and would close the wound without delay. The dangers of the operation, in any event, were also fairly and fully stated.

My intelligent patient seemed to have made up her mind to undergo the operation; desired that it might be performed, but felt much depressed at the announcement that there was a possibility of the tumour not being removed. The operation, therefore, was determined on.

21st. My brother, Dr. J. L. Atlee, of Lancaster, examined the patient, and took the same view of the case.

22d. This morning, at ten o'clock, was the time fixed for the operation. Before proceeding with it, however, I stated to the medical gentlemen present the obscurity in the diagnosis, that the tumour probably could not be removed, but that I expected to accomplish it, even if I had to enucleate it from a cyst in the walls of the uterus. The only obstacle to its removal that I conceived probable, was, either that the tumour consisted of a hypertrophy of the uterine walls them-

selves, or that it was formed by a tumour within the cavity of the uterus.

The abdomen was opened, and the mass was turned entirely outside of the cavity of the abdomen, and could be readily surveyed with the eye upon all its sides. It consisted of the uterus itself, which was either hypertrophied or else distended by a solid body within it. The peritoneal coat was elevated in several places from the surface of the tumour into cystiform bodies, filled with a yellowish fluid. One of these, about the size of a walnut, was at the top of the fundus, another larger and more irregular on its left side, and a couple of smaller ones lower down. The right ovary was enlarged to the size of a small orange, and the left was about three times its natural bulk. Both ovaries seemed to be attached to the uterus so low that the great body of the tumour was above the points of attachment. Such being the condition of things, it was considered improper to remove the tumour. It was returned, the wound closed, and the patient rapidly recovered.

After the patient had recovered from the operation, she was exceedingly desirous that something more should be attempted for the removal of the tumour. During her convalescence, it happened that a lady arrived in Philadelphia from Virginia, with a large fibrous tumour imbedded in the posterior wall of the uterus, and another lady from Carlisle, Pennsylvania, with a tumour as large as her own, sealed within the cavity of the uterus, both of which I succeeded in removing safely by the knife, *per vias naturales*. Hearing of these cases and their successful results, she was quite solicitous to have a similar operation upon herself.

Accordingly, June 25, 1849, I examined her in reference to the propriety of such an operation. I again tried the uterine sound; it passed in, as before, to the distance of two and a half inches, when its progress was arrested. By urging it onwards, however, it seemed to pass between the walls of the uterus and the tumour on the sides; at the same time a sensation was communicated to the hand as if weak adhesions were lacerated by the point of the sound. After destroying these apparent adhesions between the tumour and the interior of the uterus, the sound passed up a considerable distance. The os tincæ scarcely admitted the point of the index-finger; it was very firm and resisting; the finger could merely be pressed into it, not through it, and could not, consequently, be inserted so as to feel the tumour within. The papillary form of the cervix was entirely

lost, but the sound showed that, at least, one inch of uterine tissue was traversed by it before getting within the interior.

June 26. The patient said the use of the sound was followed by pain similar to labour-pain, and she complained of considerable soreness along the sides of the tumour touched by the sound. Very little sanguineous discharge followed. The top of the tumour had become depressed for the distance of three fingers' breadth, and a swelling of the left leg, which had existed several days, had also diminished very much.

27th. The old soreness at the top of the tumour in the right hypochondrium was less than before the operation of gastrotomy, although it had been greater afterwards. It had decreased greatly, and the rest of the soreness following the use of the sound had disappeared.

At the time of using the sound, the patient had had the catamenia for several days.

This examination, taken in connection with the appearances of the parts exposed by the operation of gastrotomy, induced me to conclude that the tumour existed within the cavity of the uterus, attached extensively to its interior surface, and that it was possible to remove it through the natural passage. I advised her, however, not to undergo the operation at present, but to return to New York, resume her usual habits, regain her general health, and revisit Philadelphia the ensuing autumn or spring. This advice was given in the hope that by that time nature, aided by art, might produce a more favourable condition of the *os tincæ*. She reluctantly assented to return home, and was only detained until I could procure for her some of the fresh crop of ergot, then maturing.

July 11. The patient improved in health, occasionally walking out, though she took less exercise than she desired in consequence of an unsightly œdematous swelling of the left leg. She had a return of soreness in the right hypochondrium. I again introduced the sound, which appeared to pass around the posterior and sides of the tumour. No change had yet occurred in the *os tincæ*.

This examination was attended with less pain than the other, and there was no stain of blood on the finger.

16th. The patient went home to-day, provided with a quantity of fresh ergot. She was directed to take ten grains of powdered ergot every two hours, until uterine contractions were induced, or until one drachm was taken, and then to suspend its use for one week, my object being to dilate the *os tincæ* and cause the tumour to descend more into the pelvis.

August 3. My patient writes: "I do not think my health has been as good since I left Philadelphia. I am very weak, and have a great deal of pain in my side, over the upper part of the tumour, where it has troubled me so much. I have taken ergot twice. The first time, it gave me a great deal of pain, and I had a high fever. It affected my head very much. That night I could not rest at all, and the next day I felt very badly. Yesterday, I took it again. In half an hour after I took the first powder the blood rushed to my head, my face seemed swollen, and there was difficulty in breathing. After taking the second powder my limbs trembled badly, and my flesh was hot and feverish."

In consequence of these unpleasant symptoms, I directed her to take only half the quantity of ergot.

20th. She again writes: "Last week I took, according to your directions, half the quantity of ergot. The effect was the same as when I took the full dose. It affects my head more than any other part of my system. I am almost afraid to meddle with it until where you can see the effect produced. My health is quite good; but I am very weak, and bloat very badly. My appetite is good, or rather craving; but everything I eat produces a very oppressive sense of fullness, and an uncomfortable bloating of the stomach and abdomen."

I immediately ordered the discontinuance of the use of ergot.

October 11. The patient returned to Philadelphia in the enjoyment of tolerably good health, having recovered the tone of system she had lost during her previous confinement.

21st. I examined the case again. The abdomen was rather larger, the tumour being wider and higher, which, I think, was accounted for by the position of things in the pelvis; the uterus was elevated from the cavity of the pelvis; the os tincæ was thrown more forward, and was much more closed. In other respects, the patient was much the same as when she left Philadelphia.

22d. In company with Professor Grant, I passed through the os tincæ a probe-pointed, curved bistoury, and slightly nicked it in several directions. This was attended with very little pain, and followed by only a few drops of blood. I now ordered ten grains of powdered ergot to be taken every two hours until uterine pain was established. After taking two doses, the same distress was produced by it as described in her letters, without any effect upon the womb itself. An examination, per vaginam, the same evening, indicated no action on the os uteri; neither was there any tenderness of the parts. The ergot was, therefore, discontinued. On the 23d, I examined, per

vaginam, again. There was no heat or soreness of the parts, and no prospect of overcoming the contracted condition of the os tincæ. I now informed the patient that, in consequence of the unpleasant symptoms produced by ergot, particularly as it was unaccompanied by its specific action upon the uterus, I could not depend upon its influence; and therefore it was doubtful whether the removal of the tumour could be accomplished. This information had a very depressing effect upon her, as it seemed to destroy all hope of getting rid of her disease. Next morning early I was sent for; she had had in the night a violent chill, which, lasting for about an hour, was followed by considerable reaction. This was soon succeeded by the development of erysipelatous inflammation along the track of the abdominal cicatrix, which spread rapidly in every direction, invading not only the skin, but also the serous and mucous tissues, as indicated by diarrhœa and vomiting, and an aphthous and inflamed condition of the lining membrane of the mouth and throat. The erysipelas continued, unchecked, with great violence, until the powers of life gave way, and the patient sunk under it on the morning of November 3.

On opening the cavity of the abdomen, several hours after death, it was found that the old cicatrix was strongly adherent, almost its whole extent, to the anterior face of the uterus; that a considerable amount of purulent serum had collected within the cavity of the peritoneum, and that loose adhesions existed between several points of this membrane, indicating *recent* inflammation. The tumour itself had very much the same appearance as at the time of the operation of gastrotomy, with the exception of the cystiform bodies, which had disappeared from its surface, save the one at the fundus, which had not altered in size, though it was more solid. The ovaries had not changed in appearance. The right one burst in attempting to remove the tumour, and a greenish-yellow fluid escaped. The firmness of the tumour had very much diminished; it was much softer than before.

The mass, with the attached cicatrix and ovaries, was removed and examined. It was laid open, on its posterior face, from the os tincæ to the fundus, so as nearly to bisect it. This disclosed a fibrous tumour in the interior of the uterus, sealed firmly to it at every point, except a space about three-quarters of an inch in diameter, communicating with the mouth of the womb. Upon passing a sound into this space, it went directly up to the right Fallopian tube, and no farther. This track was lined with mucous membrane, was about three-quarters of

an inch wide, about two inches long, and was the only part of the interior of the womb supplied with mucous membrane; every other point, even around the left Fallopian tube, was closely adherent to the exterior of the tumour. The canal, through the cervix, from the vagina to the interior of the uterus, where it came against the tumour, was about an inch or an inch and a half in length, and was lined with healthy membrane, the notches made by the bistoury not being perceptible. The tumour itself had evidently degenerated. Large masses of it had softened down into a brain-like substance, while other parts retained the fibrous character.

Remarks.—The autopsy satisfactorily explained some points of particular interest in this case. While making the examination to decide upon the propriety of gastrotomy, the sound, taking the direction towards the right side, passed into the uterus only two and a half inches, which is the normal depth of the cavity. It must, therefore, have followed the track to the right Fallopian tube, which was in reality the only *cavity* in the uterus, and, as the development of the tumour and uterus took place principally above this point, and as every other part of their surfaces was adherent, the want of correspondence between the size of the uterus and the depth of its cavity is thus explained. The sound being one of the means of diagnosis in abdominal tumours, this case shows that, although it may enter no farther than the normal distance, this circumstance alone is not a correct indication of the condition of the uterus.

Again, after the patient had recovered from the operation of gastrotomy, the sound was employed a second time. It again passed without impediment to the distance of two and a half inches, and, upon urging it onwards gently, it appeared to overcome weak adhesions between the tumour and uterus, so that the sound finally entered a considerable distance. The sensation, communicated by the sound, of lacerating adhesions, no doubt was caused by the point of the instrument penetrating into the substance itself of the degenerated tissue of the tumour. This was confirmed by the fact that, in plunging the sound into the tumour, after its removal, precisely the same sensation was produced.

There is another interesting fact connected with the attack of crysipelas in this case. On the 15th of October I operated on an elderly lady from Chester, Delaware County, for fissure of the anus. She was constitutionally liable to crysipelas, and the operation was followed by a severe attack of it, but from which she recovered. On

the 20th of October I operated on a middle-aged lady, from Chester County, for the removal of a large steatomatous tumour in the axilla. This was also followed by erysipelas, a first attack, and from which she also recovered. On the 22d of October I operated on the case here reported. Dr. Grant, who assisted me in the operation on the Delaware County patient, informed me that two of his patients were also seized with erysipelas the same week.

CASE V.—*Miss M. B., aged 36 years ; tumour intra-uterine, and distended the uterus to the size of full pregnancy ; os tincæ closed ; cervix entire and dense ; orifice very small ; the whole tumour removed ; supposed weight eight or nine pounds ; recovered.*

Miss M. B., aged 36 years, of Lancaster County, Penn., consulted me on the 13th of November, 1849, for a large tumour in the abdomen. As she stood dressed she appeared as large as a female at the full period of gestation. The tumour was prominent, hard, unyielding, and extended upwards nearly three inches above the umbilicus and laterally to both the iliac bones. It was very slightly movable.

Examining per vaginam, I found the os tincæ closed, and thrown towards the left sacro-iliac junction. The cervix was of the usual size and regular in shape, but dense. The brim of the pelvis was occupied by the lower part of a resisting mass, as hard as that occupying the abdomen.

I had the following history from herself: She began to menstruate in her 16th year, and did so regularly and without pain up to the year 1841. In her 17th year she had two attacks of fever, and when 20 years old she suffered from cough, which continued two years, and which was said to be consumption. In 1841, while standing on a rocking-chair and reaching upward, she fell, and thinks she struck the lower part of the abdomen against the chair. She was so much hurt as to keep her bed for two weeks, during which time a lump formed in the vagina, which was opened by her physician, but nothing beside clotted blood discharged. From that period she had never been well, menstruation was always painful, menorrhagic in character and more frequent than before, and the catheter was demanded frequently for retention of urine. Subsequently to this injury she had an attack of pleurisy. The pain of menstruation now became almost insufferable, and continued during the whole menstrual period, and for about three days following, accompanied with swelling over the pubis. To relieve this intense suffering large doses of opium had been taken. She first noticed the tumour the last of December,

1846. It was then as large as a hen's egg, hard, and immediately above the symphysis pubis. On the 8th of June, 1847, she was seized with very severe pain in the tumour, which had greatly increased in size. For three weeks she was exceedingly ill, suffered severely night and day, and the urine, after having been retained for thirty hours, had to be drawn off with the catheter. This attack was followed almost immediately by another equally severe, lasting seven weeks, and accompanied with unceasing and extreme pain. On the 8th of August a consultation was called, and blisters were ordered to be applied, every other day, over the tumour. This treatment was continued until twenty blisters had been used, which relieved the pain but partially. During this period, for seven weeks, she could not turn herself from one side to the other. Four weeks afterward she had an affection of the bowels, which was accompanied with a discharge of blood and matter resembling the scrapings of entrails. The discharges were very frequent, small, slimy, and bloody, and there was great tenesmus. After this there seemed to be a slight diminution of the tumour. She kept her bed until the 4th of September, after which she was better, and able to be about until May, 1848, except two weeks in the month of February. The tumour now did not appear to increase in size, and she remained free from severe pain until June, 1849, when she had another very severe attack, and swelled enormously. Her physician, Dr. Isaac Winters, and his son, Dr. Leamon Winters, both attended her until the 18th of August. She was so ill at this time that both remained with her one night, administering morphia every hour, and to such extent as to induce an attack of delirium tremens. Still, the suffering was not relieved. Her brother-in-law, who resided in Philadelphia, insisted upon bringing her here, to place her under the care of Dr. F. A. Martin, his own family physician. She was accordingly brought on the 18th of August, and Dr. Martin commenced attendance on the 20th, and continued his care until November; she believes that the pain was somewhat relieved, but the tumour continued to increase. During the attendance of Dr. M. she had five attacks of extreme pain, which lasted, at each several period, three or four days, and always came on with greatest severity after each menstrual flow had ceased, although, during the whole period of their flow, she suffered very much. Menstruation also was copious, lasting about eight days.

The above history was fully corroborated by Dr. Isaac Winters, of Hikletown, Lancaster County, in a letter dated March 13, 1850. The

patient had been seen in consultation with him by Dr. F. A. Muhlenburg of Lancaster.

After examination, I gave the opinion of a probability of being able to remove the tumour; the patient decided to go home for a short time, and return again to Philadelphia, to place herself under my care.

December 13, 1849. The patient returned to Philadelphia. I visited her on the 15th and made a second examination. I discovered nothing differing from what the first observation exhibited. I now, however, employed the uterine sound. It passed through the os and cervix uteri with considerable difficulty and pain; and passed fully two inches in before it appeared to get beyond the fleshy depth of the cervix. It entered the interior of the uterus towards the left side to the distance of seven inches. It could not be moved round the interior; and, on every movement of the sound, the impulse seemed to be communicated to the tumour, as felt through the walls of the abdomen.

After the examination, I decided that there existed within the cavity of the uterus, a fibrous tumour which was developing itself in the fundus, and not distending the cervix, and determined, that if the specific action of ergot could be procured, I would make a section of the cervix, and cause the tumour to be expelled from the interior. Accordingly, I prescribed 10 grs. of ergot, to be taken every four hours, until uterine pains should be established. This was continued until the 19th, with the production of some uterine efforts, and a slight impression on the 19th upon the upper part of the cervix, as if it were about distending. Until this time, although an examination was made daily, no change could be recognized.

20th. To-day I introduced the Ricord Speculum, and by means of a long bistoury, passed through the speculum, I made several slight nicks into the os tinæ, which was followed by very little bleeding. Ergot was continued without interruption. On the 21st instant, I thought the cervix was still yielding, and on the 22d, I made several more nicks into the os, extending them up through the cervix.

27th. Ergot was still continued as first prescribed up to this date, producing a slight but by no means decided action of the uterus. To-day I cut the cervix much more extensively, and again on the 28th repeated the sections, very little bleeding having followed the operations. Ergot was still administered until the 31st, when I severed the cervix still more, and afterwards, in consequence of the ergot having apparently lost its effect, I ordered ten grs. every two hours. No

impression as yet seemed to have been made upon the tumour, and very little upon the cervix.

January, 1850. I renewed the operations on the 5th, 7th, and 8th, respectively, making much more free sections of the os and cervix. I was now able to introduce the whole length of my index-finger through the cervix, and was just able to strike against the lower portion of the tumour with the extreme point of the finger. This dilatation of the cervix seemed to have been accomplished solely by the knife, without any aid from the ergot, which, up to the 8th, was continued every two hours.

I now for the first time suspected that the ergot which had been used was of bad quality, and having procured some of a recent crop, I ordered 10 grs. to be given every half hour for five hours in succession every morning, and then be suspended. This treatment was to commence on the 9th. I soon found that the specific action of the ergot was energetically established, and by the 12th, the patient was thrown into a state of complete ergotism, accompanied with great distress in the head. I again incised the cervix on the 12th, and also on the 13th, although the use of ergot had been suspended. To-day, the 13th, I found the cervix and os uteri yielding so much, that I could pass two fingers into the uterus, and I was able to reach the tumour at one inch distance, although it first required a finger's length. The ergot now produced dreadful pains, which continued without intermission. Severe as her sufferings were, the patient assured me they were nothing to compare with her previous agony.

In passing the knife into the uterus to-day (the 13th), I severed several of the attachments of the tumour, besides cutting into its substance. This was followed by very little hemorrhage. The substance of the tumour was so resisting that the knife grated through the tissue so loudly, that the nurse heard it. After the ergotism had subsided, I recommenced the same prescription of the ergot, less frequently, but often enough to keep the uterus in contractile action. On the 17th, I operated again and for the last time, destroying more of the attachments between the tumour and the uterus, and also disintegrating to a considerable extent the tumour itself. Ergot was continued occasionally after this until the 30th of January, and during this period the cervix gradually distended more and more, and the tumour sunk lower in the abdomen, so that, on the 30th, its lower part could be distinctly recognized through the os tincæ, undergoing a process of softening and disintegration. A discharge now began to flow from the vagina, and in a few days it amounted to an immense

quantity, and very offensive. This was accompanied with irritative fever, and considerable oppression over the chest, with some difficulty of respiration. These symptoms, however, were soon relieved by a blister over the breast, on the 5th of February. By the 9th of February the tumour had sunk to a point two inches below the umbilicus, was much narrower and less prominent, had contracted in all its dimensions, was less resisting, could be felt through the os tincæ rapidly softening, and the fingers, after the examination, were tainted with a tenacious, offensive, putrid odour. Large quantities of ill-conditioned offensive matter were still discharged from the vagina. From this time the tumour rapidly diminished.

February 15. A copious watery discharge flowed all the day, irritating the vulva and thighs. The thin portion of the discharge soaked through the clothes, while a more dense matter was deposited upon them, containing flakes resembling pieces of wet tow. The tumour seemed to descend into the vagina and press against the neck of the bladder, so as to cause retention of urine for sixteen hours, after which the urine passed, and was again retained for sixteen hours. On the 17th, I was sent for to relieve the bladder. The patient was also greatly excited in consequence of the escape of a portion of the tumour, still attached, which she supposed was the womb coming out. I now removed a large portion of the tumour, which which was occupying the vagina, and which had lost its vitality, and resembled, as before, a mass of wet tow. On the 18th, I removed another mass of the tumour of the same character, and on the 19th, I surveyed the whole interior of the uterus with Bond's placental forceps, and could detect nothing remaining. The abdominal tumour had now entirely disappeared, and the fundus of the uterus could scarcely be felt by dipping deeply into the basin of the pelvis, over the top of the pubis.

The patient recovered rapidly, and returned home in about two weeks. I have seen her since, and heard of her frequently. She has regained her health perfectly, and engages in all kinds of household labour.

Remarks.—Ergot was continued in this case almost uninterruptedly for a period of seven or eight weeks, without producing any unpleasant effects upon the general health. It is not improbable that the continued tension of the muscular fibres of the uterus, induced by the ergot, may have had considerable agency in destroying the vitality of the tumour, as I can readily conceive that the circulation

of an intra-uterine tumour, situated as this was, may be entirely suspended by maintaining an active and uninterrupted contraction of the uterus. It is in this way that ergot, when incautiously used during parturition, particularly in first labours, often destroys the life of the child.

Ergot, in this case, acted with great power upon a uterus not under parturient excitement. The resistance of the cervix was overcome by the free use of the knife, and, so soon as the os tinæ was expanded, the ergot caused the uterus to contract and expel its contents. This, therefore, was a species of labour artificially induced.

This patient was in the city quite recently, called to see me, and is in the enjoyment of excellent health. The functions of the uterus are perfect. This is the more remarkable, as her general health had been so much impaired as to indicate decidedly a malignant tendency.

CASE VI.—*Mrs. S. B. K., aged forty-two years, tumour intramural; was developed in the posterior wall of the cervix, expanding it into the form of a cyst; occupied the abdomen to the height of the umbilicus; patient bloodless from repeated floodings, and her life in imminent hazard from present hemorrhage; bleeding ceased immediately on operating; removed the whole mass, weighing nine or ten pounds, at once through the os externum. Death from anæmia.*

Mrs. S. B. K. consulted me May 29, 1850. She was of rather a full habit, and disposed to corpulency, but quite anæmic from great loss of blood. There was also a peculiar straw-coloured tinge upon the skin. A tumour could be felt in the abdomen, occupying the central part, extending up to the umbilicus, and could be traced dipping deeply into the pelvis. It also extended laterally, on both sides of the linea alba, to points midway between the mesian line and spinous processes of the ilii. It was oblong in shape, hard and smooth, and pretty firmly fixed in its position. At its upper part, and immediately to the left of the umbilicus, was a small but much more prominent tumour, which seemed to be superimposed upon the deeply seated mass. This portion was softer, semi-elastic and smooth—movable upon the large tumour, and attached to it. The patient did not complain of any soreness in the examination.

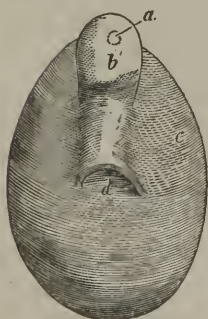
Per vaginam, the pelvis was found to be occupied by a large mass, which somewhat resembled to the touch the under service of a placenta when in the grasp of the os tinæ, but firmer. It evidently was covered by a smooth mucous surface, beneath which slight indenta-

tions or sulci could be felt. The pelvic portion of the tumour did not occupy the recto-vaginal space, but was within the vagina. The vagina could be traced running up behind and on the sides of the tumour until the index-finger rode in a sulcus at its termination. The pelvic tumour seemed to consist of an expansion of the posterior part of the cervix uteri, and of the os tinæ. The tumour did not project from the cavity of the uterus, as no fold of the posterior lip could be felt grasping it; on the contrary, this lip of the os tinæ was lost in the tumour, and appeared to be an expanded covering for it. In front and far above the pubis and anterior to it, the index-finger could detect the front lip of the os tinæ stretched across the anterior face of the tumour, resembling a bow, its ends or commissures being gradually thinned down until they were lost in the expanded posterior lip. In consequence of its great height, it was very difficult to insert the point of the finger into the os tinæ. The sound entered the uterus to the distance of eight inches, keeping in front of the tumour, and its point could be distinctly felt at the umbilicus.

This examination was accompanied with but slight pain and bleeding, and was followed by no unpleasant symptoms.

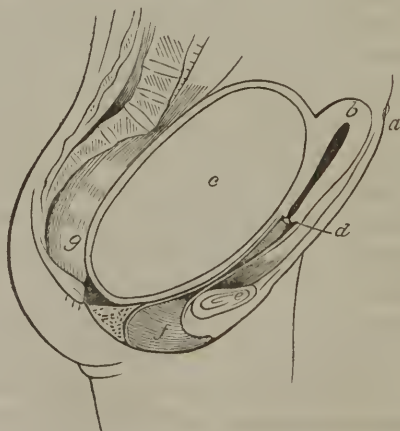
The diagnosis was, a fibrous tumour of the uterus, not in the cavity, but located in the posterior wall, expanding that wall into an envelop, and elongating the uterine cavity, and stretching laterally the anterior lip of the os tinæ. The following drawings, figures 3 and 4, represent the relative position of the parts.

Fig. 3.



a. Umbilicus. b. Fundus and body of Uterus. c. Tumour. d. Os Tinæ.

Fig. 4.



a. Umbilicus. b. Fundus and body of uterus. c. Tumour. d. Os Tinæ. e. Pubis. f. Vagina. g. Rectum.

The patient gave me her history as follows: She was 42 years of age. Menstruation commenced at 12 years, at which time she was large and fat. She continued regular to the period of marriage. At 14 years of age she had intermittent fever for five months. Never had had any other disease, and has no hereditary disposition thereto. She was 24 years of age at marriage, and has had three children, the youngest being 8 years old at the time she came under my notice. She did not nurse her last child, in consequence of sore nipples, and six weeks after its birth she had abscesses in both breasts. After this parturition she again menstruated and remained regular until March, 1848. About ten days after a regular period she took a long walk to church, on Sunday morning, at the same time feeling uneasy in her back. On her return home she was taken with a slight bloody discharge from the uterus. This returned in the evening, and again next morning, increasing each time; and, while seated at dinner-table on Monday, a sudden copious gush took place, and again a larger quantity the same evening. The patient thinks the amount discharged at noon amounted to about one gallon. The hemorrhage continued badly until the succeeding Sunday, when she swooned and remained as dead for three hours. Reaction was not accompanied with consciousness, and she lay for about a week senseless. After a confinement of five weeks she gradually recovered. The menses again returned regularly, but were more and more copious until the first of July, 1849, when another flooding occurred, while in the act of rising in the morning. This soon ceased, after which she crossed the Delaware from Camden to the city. Very soon after landing, flooding again came on, and large masses of coagula were discharged. This confined her one week and prostrated her greatly. A pain in the back, lasting one day, always preceded these attacks. In August she menstruated again, and the first week in September she again flooded badly for a week. Menstruation was again regular until the middle of December, when hemorrhage came on again, but not so badly, lasting three days, and followed by a discharge sometimes red, at others white, and again watery. This discharge continued for fifteen weeks. During this period she had repeated hemorrhages at intervals of ten, fourteen, or twenty days, lasting for two or three days at a time. Her last attack was very sudden and copious. Previous to the floodings she became large and heavy, and had difficulty in passing urine. She was almost bloodless, skin œdematous or doughy, pulse 88, and exceedingly feeble.

Every means having been used to arrest hemorrhage without avail,

and the patient rapidly sinking, the urgency of the symptoms called for prompt action. The patient herself was likewise very solicitous that an effort should be made to save her. I proposed the operation which I will presently give in detail. To prepare the uterus for the operation, and also with a view to arrest the sanguineous flow, I ordered an infusion of ergot, and about seven grains to be taken three times a day. Next day, the 30th, a slight uneasiness in the back was induced. The medicine was continued up to the 31st, when it was administered every four hours.

June 1.—About daylight the patient was taken with pretty severe pains in the back, which assumed the character of periodical uterine pain. As the ergot was now acting efficiently without arresting the discharge, and, as the vital powers were still giving way in spite of sustaining treatment, I took Prof. Grant with me at 3½ P. M., intending to operate should he unite in approving the measure.

After a careful examination, Dr. Grant coincided with me in regard to the urgency, the propriety, and plan of the operation. The patient having been placed upon the edge of the bed, I introduced a long bistoury into the cavity of the uterus, and turning its edge backward upon the tumour, cut through the posterior wall of the cervix and posterior lip of the os tincæ, down through the corresponding portion of the vagina, all of which formed the antero-inferior covering of the tumour. In doing this, I sunk the knife into the substance of the tumour, which grated beneath it. Afterwards, with the point of the index-finger engaged in the incision, I endeavoured to enucleate the lower or pelvic portion of the tumour, which I easily accomplished by breaking up the attachments between it and the coating first incised. The portion of the tumour thus laid bare, or uncoated, equalled the size of a large orange, and was quite smooth, as if covered with a smooth membrane. Here and there, were strong bands, sealing the envelop to the tumour; but most of them I separated with my finger, and others with the knife. Some of the strongest in front and to the right side I allowed to remain for a subsequent operation. Very little blood was lost; *indeed, from the moment the cut was made, at which time there was a slight gush of venous blood, not a drop more was discharged.*

Immediately before the operation I gave the patient a double dose of ergot, viz. fourteen grains, which brought on active labour-pains; afterwards, I introduced a sponge tampon, to provide against hemorrhage. Another dose of ergot was ordered at 7 o'clock P. M.

At 8½ P. M. I was sent for in consequence of the severe labour-

pain which had continued from the time of the operation, and which had increased after the last dose of ergot to such a degree that, fifteen minutes afterwards, a teaspoonful of elixir of opium was administered to counteract its effects. I removed the tampon, found that there had been no bleeding, and that the mass had descended more into the pelvis. I separated additional portions of the tumour with the finger; but the bands, before referred to, were too strong to be broken up. Before leaving the patient, I gave another spoonful of elixir of opium, and ordered ergot to be suspended until morning.

2d. The patient passed rather an uncomfortable night; was free from pain, but laboured under the unpleasant effects of the anodyne. She was much debilitated; there was no bleeding, but, in the day, there was a whitish discharge from the vagina. Some more adhesions were broken up with the finger. She passed the day pretty comfortably.

3d. 3½ P. M.—Dr. Grant visited the patient with me. Her stomach had been very irritable, rejecting everything. Ergot had been given every two hours since five o'clock in the morning, until four doses had been taken; but this, and everything else, were rejected. She complained of pain in the back, and had difficulty in passing urine. Upon external examination of the abdomen, the tumour was found to have diminished very much; and, upon examination per vaginam, it was found to be so low down as to press upon the internal faces of the vulva. The finger passed readily around the tumour, between it and its envelop; but there were several strong adhesions in front, which I severed with Cooper's bistoury, and then broke up several others with the point of the finger.

There had been a very copious discharge of watery fluid from the vagina all day, and throwing off an incipient putrescent odour. The tumour also felt as if it had begun to degenerate.

10 P. M.—The patient had a chill at about 7 P. M., which was followed by fever. Respiration was slightly laboured, countenance good, complained of her back, and the discharge became more fetid.

4th. 9 A. M.—The patient passed rather an uncomfortable night; respiration laboured, and complained of soreness. Introduced catheter, and drew away about one gill of urine. The tumour filled up the pelvis.

4 P. M.—Saw the patient in company with Dr. Grant. It being feared that the chill, fever, and oppressed breathing arose from the irritation of the putrefying mass in the pelvis and abdomen, it was decided to remove as much of the tumour as possible. The patient

lay upon her left side, with her hips at the edge of the bed, and her knees drawn up. Upon separating the vulva with the fingers, the tumour could be seen. It was much degenerated, and extremely offensive. Seizing the tumour by the two index-fingers, passed high up on the opposite sides, I drew upon it; and, aided by the crotchet, inserted at different points, I succeeded in bringing out the lower portion. Several bands on the anterior face, which could not be broken with the finger, were now severed with the bistoury; after which, the left hand was insinuated into the vagina, along the side of the tumour, and also into the cyst, and employed in separating the attachments. With the points of the fingers I was able to scoop off the tumour, or enucleate it from the walls of the cyst, aided by a crotchet in the other hand making the parts tense. Occasionally, I met bands so strong that I had to divide them with the bistoury. The manipulations with the hand were very similar to the operation of detaching an adherent placenta. Persevering in this way, I succeeded in turning out of the cyst, and also out of the vagina, the whole mass of the tumour. There was no distinct pedicle; but the tumour was attached to the expanded wall of the uterus, like the orange to its skin, and in like manner separated. The whole operation lasted about half an hour.

Previously to the operation, the abdomen was a good deal distended, particularly in the region of the tumour; percussion returned a resonant sound, indicating a collection of air within the interstices of the tumour, the evolution of the gas having occurred in consequence of putrefaction in the dead mass. This was made evident by the operation; for, so soon as I began to manipulate the tumour, gas escaped, filling the room with offensive odour, and the size of the abdomen as rapidly diminished. The tumour itself, after removal, still contained gas within its substance. Not a particle of blood escaped, nor indeed, has any since the first operation. The whole uterus descended into the pelvis, so that nothing of it could be felt above the pubis. The tumour filled a large wash-basin, and, in its degenerated state, weighed five pounds. Its estimated weight, before decay, was eight or ten pounds.

10 P. M.—The removal of the tumour did not appear to afford relief to the symptoms. Respiration became more and more laboured—the pulse was small, though not frequent; there were considerable restlessness and jactitation, and the patient was evidently sinking. Anodynes and stimulants did not relieve her, and she died at two o'clock A. M. of the 5th.

5th. 8 P. M.—The body was examined by Dr. Grant. The chest and abdomen were opened, but there were no marks of disease present. Everything looked pale and white, perfectly blanched. Several ounces of yellowish serum were in the cavity of the peritoneum, and a considerable quantity of bloody serum was in the right pleura, less in the left, and some in the pericardium. The omentum was spread beautifully over the intestines, and as pale as the rest of the body. There was merely a perceptible pinkish hue upon the surface of some of the intestines. The uterine organs were entirely within the pelvis; the recto-vaginal cul-de-sac of the peritoneum was very deep. There seemed to be a partially abraded spot on the peritoneum, covering the promontory of the sacrum, and a corresponding one on the posterior surface of the cyst which covered the tumour. The uterus, rectum, bladder, and vagina were removed in a mass, and examined.

The parts removed, proved the diagnosis to be accurately correct. The posterior part of the cervix uteri had been the seat of the tumour; which, originating in its substance, had distended it into a complete cyst and filled the pelvis, projecting into the abdomen as far as the umbilicus, while the body of the uterus rested upon its fundus. The whole tumour had been enucleated; and the cyst on its inside was lined by a shreddy substance, showing that it had been everywhere adherent to the tumour.

The opinion of the medical gentlemen present, as expressed by a certificate, was—that the patient died from *anæmia*.

Remarks.—This operation, although it did not succeed in preventing a fatal result, I consider one of the most successful in its performance I have ever accomplished. The entire tumour, *en masse*, was turned out from its cyst in the posterior wall of the uterus, and delivered through the vagina without causing the least injury to the neighbouring viscera, as was subsequently proved by the *post-mortem* examination.

The important fact that hemorrhage, arising in consequence of the presence of a fibrous tumour, can always be arrested by cutting through the coating of the tumour, was most clearly illustrated in this case. The patient was perfectly anæmic from the direct loss of blood, which still continued to flow, but ceased immediately after a section of the tumour was made. Unfortunately, however, sanguification could not be established after the operation, in time to prevent the fatal prostration induced by the loss of blood previous to the incision.

An earlier resort to surgical treatment most probably would have saved the patient. She had been under the care of a homœopath up to the period of the operation, and how far the do-nothing-treatment of this practice aided in the result, it is impossible to say. What means homœopathy possesses of controlling uterine hemorrhage, I do not know, but it appears to me that scientific medicine would have afforded more efficient aid, and prevented such a complete exhaustion of the vascular system as was exhibited here.

CASE VII.—*Miss A. B., aged 49 years; tumour intra-uterine and sealed to the interior surface of the uterus; extended to within one inch of the umbilicus; the cervix was lost in the tumour, and the os was firm and ring-like; removed one-third of the tumour; died suddenly from disease of the heart.*

October 1, 1850, I was requested to see Miss A. B., aged 49 years. She commenced menstrual life at 15 years of age, and had always been regular, except during the last year, when she went three times beyond the month. Menstruation had never been painful, nor the discharge clotted, but had always been profuse, and during the last few years had amounted to flooding. She was disposed to corpulency, and had an anæmic appearance.

The abdomen was not very prominent, but covered with a thick deposit of adipose tissue. A tumour was felt through this, deeply seated, extending up within an inch of the umbilicus, outwards, to within an inch of the left superior spinous process, and across the linea alba towards the right. It was hard, resisting, and oval-shaped, nearly as large as a child's head, but slightly movable, and free from pain on handling. On examining per vaginam, the os tincæ could be felt on the left side of the pelvis, but so high as to be difficult to reach. The tumour occupied the superior strait, and the cervix uteri seemed lost in the tumour, while the os tincæ was sufficiently open to admit the point of the index-finger, the lip being slightly thickened. The sound entered $6\frac{1}{2}$ inches, and all movements of the tumour were readily communicated to the sound. No bleeding or pain accompanied or followed the examination.

The diagnosis was intra-uterine tumour of a fibrous character.

2d. I ordered the patient to take seven grains of ergot three times a day, which was continued at that rate until the 4th, when it was ordered six times a day. Two days after, she took ergot eight times a day, but no evidence of uterine contraction followed; no pain, fulness, nor tightness in the lower part of the abdomen.

On the 7th I examined her again, and, although the ergot had failed to produce pain, yet the os tincæ was more open, and much lower in the vagina, so that it could be reached more readily by the finger. The point of the finger could now touch the lower end of the tumour, which seemed to occupy the posterior wall. Ergot was continued as before.

On the 10th, I discovered that the os tincæ was still becoming more and more relaxed and depressed. On the 12th, the ergot producing nausea, I suspended its use until the morning of the 14th, when I ordered her to take ten grains every half hour from 10 A. M. until 3 P. M., the time appointed for the first operation.

14th. I passed the long bistoury into the interior of the uterus, and nicked the os and cervix, so as to be able to pass my finger more readily into the uterus. Next day I administered ergot in the same way, and repeated the operation, opening the os tincæ to a greater extent.

16th. I ordered ergot to be taken three times a day, and the following day I operated again, cutting into the substance of the tumour. On the 19th I intended again to operate, but was prevented by the supervention of menstruation, although ergot had been taken every half hour. The moderate use of ergot was continued. The vaginal discharges had been increased since ergot was given. In the above operations there was very little pain, and but few drops of blood appeared.

24th. Operated again, and cut away the attachments between the tumour and the right side of the cervix, and also incised the lower end of the tumour in several places. 26th and 28th, again operated, dividing several adhesions, and cutting deeply into the tumour. A tumour appeared to occupy the right side of the pelvis, apparently distinct from the other. The size of the first tumour diminished, and its fundus fell nearly two inches below the umbilicus. The os tincæ was much wider open, and the discharge became more copious and offensive.

30th. Passed the sound into the uterus $5\frac{1}{2}$ inches. The tumour in the right side of the pelvis was now discovered to be but a part of the first, and could be partially enucleated by the point of the finger, curved over the edge of the os tincæ, towards the right side. I incised the tumour again. November 1—operated again, and enucleated more of the tumour. The discharge of course increased after every operation.

November 4. Perceived a putrid smell as soon as I entered the

room, which indicates softening and degeneration of the tumour. The watery discharge had greatly increased. Divided several strong bands on the left of the cervix, and enucleated more of the tumour with my index-finger.

6th, 8th, 11th, and 14th, performed repeated operations, using the crotchet, to aid in disintegrating the tumour. On the 18th removed a portion of the tumour. 20th. Suspended the use of ergot. Discharge and fetor increased, and tumour rapidly diminished. 24th. Slight fever, and menstruation. Ordered Seidlitz powder and spirits of nitre. 25th. Tumour diminished to one-third its original size.

28th. Operated without administering ergot—the operation consisting in nicking the internal os at several points. The operations were borne with but little manifestation of suffering. After using the knife, I was about introducing the crotchet, when the patient, in a strong voice, inquired: “What is thee going to do now, Doctor?” and before I commenced operating with the crotchet she called to a female friend to “bring the cologne, that she was fainting.” As the feeling of syncope was not an unfrequent occurrence with her, I thought nothing of the request; but her limbs becoming suddenly relaxed, I looked up, and was much alarmed to find her eyes turned up, and a death-like expression of the countenance. The whole body at once collapsed. Her legs, which were supported on two chairs, fell aside; her arms were flaccid, her face turned blue, respiration had entirely ceased, and there was no pulsation at the wrist or heart. She was lying on her back, and I quickly turned her upon her side, dashed her with cold water, applied stimulants to the nostrils, but all to no purpose. So rapid and complete was this collapse, and so perfect was the cessation of all vital manifestation, that, before the expiration of one minute, I imagined her dead. I, however, called for a bucket of hot water, into which to plunge the feet, and for bellows for the purpose of creating artificial respiration, and continued the dashings of cold water on her face and breast. While arranging the nozzle of the bellows to the nostril there was a very slight gasp. As soon as this occurred, I blew strongly with the bellows upon the face and chest, and it was succeeded, in about fifteen seconds, by another gasp, and then by another and another, until a faint pulsation could be perceived first at the heart, and afterwards at the wrist. The respiration and circulation gradually improved, and, after they were pretty well established, we placed her comfortably in bed. Immediately after the return of breathing there was considerable frothing

at the mouth. I now, with great difficulty, succeeded in getting down some Hoffman's anodyne, and covered her stomach and extremities with sinapisms. This was about 3½ P. M. In about an hour, or an hour and a half, she began to move herself, but previously to this not a muscle moved, except the respiratory muscles. All was languid, and flaccid. Now, however, she began to move more freely, soon becoming exceedingly restless, moving from one side of the bed to the other, but still continued unconscious, and remained more or less so, until 3 A. M. of the 29th, when she took some drink, and replied intelligently to my questions. She smiled; and, in reply to a question, said she had no pain anywhere, and felt comfortable. Her pulse at this time was pretty full, the skin and extremities were warm, and there was febrile excitement. There was also a peculiar contraction of the brows, but otherwise no alteration in her countenance.

29th. Had a large natural evacuation from the bowels—getting out of bed herself, and seemed quite strong—also passed urine. The febrile excitement lasted all day. Pulse in the evening 120–125. Had two more smaller fecal evacuations at evening. She could be easily roused, spoke and drank, and was much less restless than the previous night.

30th. Was very quiet through the day, very difficult to rouse, and after midday this was impossible. The pulse became more and more frequent, respiration shorter and more hurried, and, in the evening, distension of the abdomen commenced and rapidly increased. She died at 8½ P. M.

Twenty-four hours after death, Prof. Grant made an examination of the body. The abdomen was opened along the linea alba, the incision passing through a layer of subcutaneous fat, about one and a half inches thick. There was also a layer of fat beneath the muscles, between them and the fascia transversalis. The whole cavity of the abdomen, all the viscera, and peritoneum, were in the most remarkable state of health—not the least vestige of inflammation or disease. The lower portion of the cavity was occupied by the uterine tumour, which was quite irregular, and nodulated, having a projection passing over towards the right side. The peritoneal surface of the tumour was perfectly healthy in appearance. The uterine mass was removed from the cavity and examined. The os and cervix were quite healthy. The finger was passed into the interior, and the tumour was found broken up. There being no cause

of death within the abdomen or pelvis, the chest was opened. The left lung was quite healthy; no pleural adhesions; the lower lobe was filled with dark-coloured blood, but pressure showed healthy crepitation. The right lung was adherent from old disease, but healthy. The cavity of the pleura contained two or three ounces of bloody serum. The pericardium was opened, and about half a pint of serum, highly coloured with blood, was found in its cavity. The heart was exceedingly soft and flabby, was flat, falling together like a wet rag. Its walls were thin, dilated, and fragile, tearing very readily. The ventricles, particularly the right one, had degenerated into fat. Indeed, the heart, as it lay in the pericardium, resembled a mass of fat. Within the left ventricle there was a large mass of white fibrin, or "heart-clot," about two or three inches long and one or two inches thick. In the right ventricle was another, about the same length, and half its width. These clots may have formed during the attack of profound syncope, and afterwards remained to obstruct the circulation. The coronary veins were in a high state of engorgement, large and full.

As Dr. Grant considered that the condition of the heart was amply sufficient to account for the symptoms and death, the dissection was not prosecuted farther. The certificate of death was written by Dr. Grant in the following words: "This certifies that A. B., aged 49 years, died last evening of disease of the heart (dilatation and fatty degeneration).

Remarks.—I congratulated myself that, in this case, no anæsthetic agent had been administered, as the symptoms would undoubtedly have been ascribed to its influence. But, fortunately for this valuable means of destroying sensibility, it was not employed, although the patient frequently desired it. The *post-mortem* examination shows that death could not be attributed to the operation. Previously to the last attempt upon the tumour, the patient's mind became considerably excited on a certain subject, and the mental agitation had not yet subsided. This, I think, had much to do in the production of these alarming symptoms. Had the syncope occurred in an upright position, so as to have deprived the brain more effectually of blood, death must have been instantaneous. The recumbent posture, however, secured to the encephalon sufficient vital stimulus to enable it to respond to the restorative agents employed, and thus enabled life to struggle on a few hours longer.

CASE VIII.—*Miss H. B., 31 years old; tumour intra-uterine, and sealed to the interior of the uterus; very prominent, and extended above the umbilicus; cervix entire and movable on the tumour; os tincæ closed; supposed weight seven or eight pounds. Recovered.*

October 16, 1850. I examined Miss H. B. for a very prominent abdominal tumour, and which I found occupying the lower part of the abdomen. It extended above the umbilicus, and resembled a pregnant uterus at six or seven months. It was very firm and unyielding, slightly movable, and had attached to its right side above, a movable tumour about as large as a walnut. In examining per vaginam, the hymen was found intact, the upper part of the pelvis filled with a hard tumour, and the os tincæ closed and thrown back. The cervix was of the usual size, and could be moved upon the tumour. The whole mass could be moved up and down by playing it between the hand on the abdomen and the finger in the vagina. The sound passed into the uterus seven inches, and its point could readily be felt through the walls of the abdomen high up on the right side, on a line with the umbilicus. There was very little pain, and no bleeding during this examination. Dr. Grant assisted me.

The first menstruation was at fifteen years of age; had always been regular, but not very free; without pain or clotting, and lasted about five days. It had been more copious since the appearance of the tumour, and slightly clotted. Occasionally, there had been slight leucorrhœa. She first noticed the tumour, four years before consulting me, in the right iliac region. It was then about the size of a small orange, egg-shaped, hard, and not observed to be movable. She never had any pain in it, and it remained the same size until last spring. Last spring, she had an unusual weight and oppression in the lower part of the abdomen and pain in the back, which caused her to notice that the tumour had very much increased. Since then she was not sensible of its having gained in size. Sometimes there was a sharp stinging pain in it. Sometimes she had a desire to pass urine frequently, with occasional pain and difficulty. Habitual constipation, no difficulty in defecation. All other functions good. Pulse 76.

One year ago last winter she had an attack of erysipelas. She has frequently had symptoms of it since. With that exception she always enjoyed good health. She knew of no hereditary disease. Her brother, however, had tubercular phthisis.

Diagnosis.—Fibrous tumour within the cavity of the uterus.

November 5. The patient came to town to place herself under my

surgical care. Ordered her to take seven grains of ergot three times a day. This was doubled on the 8th, and an examination per vaginam was made on the 11th. The ergot caused some pain in the right side, and some discharge. On the 16th she menstruated.

20th. Passed the long bistoury into the uterus and nicked the os and cervix, so as to allow the point of the index-finger to pass into the os tincæ. 22^d. Operated again, and opened the os so as to admit the index-finger to the first joint. 24th. Again cut the os and cervix, and made a section into the tumour. 26th. Continued the sections, and with the point of the finger enucleated the whole lower part of the tumour. This was followed by an attack of quotidian intermittent, which was checked by quinia. 30th. Separated more of the tumour. Succeeded by a return of intermittent, which was again stopped by quinia.

December 7. Menstruation. 13th. Operated. The tumour was now one inch below the umbilicus and less prominent. 16th. Operated, and used a scoop, made for the purpose, to detach portions of the tumour from the walls of the uterus, and also a crotchet-like hook, with which I succeeded in destroying the right side of the tumour. I removed a portion of it, which was decidedly of a fibrous character. On the 19th I operated again—the tumour was much reduced in size, and there was a considerable fetid discharge. Ergot produced labour-pains. 24th. Broke up more of the tumour with the hook. 28th. Menstruation. 30th. Assisted by Dr. Grant, I operated again, incised the os tincæ more freely, and broke up the remainder of the tumour. The fetor of the discharge was excessive, and pervaded the whole house. This was the last operation required.

January 18, 1850. The tumour regularly diminished, and the fetid discharge continued. The patient rode out the first time. 31st. I examined the patient; the tumour had nearly disappeared from the abdomen.

February 3. With Bond's forceps I removed dead portions of tumour from the cavity of the uterus. This was followed by a diminished fetid discharge. Up to this period, and for a few days after, ergot was administered, and the offensive discharge continued. On the 13th, the patient returned home to Chester County. There being some soreness over the right iliac region, I ordered her to apply iodine to the skin.

18th. I received a letter from her brother, a physician, stating that his sister still continued to improve in strength since her arrival at home, although she had to keep the house three or four days after

her arrival, owing to the inclement weather. He thought the soreness was abating, although very slowly. The discharge was fast abating. It was not more than one-third of the amount it was when I left her, but free from lumps or shreds of the tumour. He thought she was improving as fast as any person could wish.

March 8. The patient writes: "It is with pleasure that I inform you of the improvement of my health since you last heard from me, although the soreness in my side is still very troublesome. The abdomen still continues to swell [occasional flatulent distensions], and my back is very weak and at times painful, but withal my health and spirits are much better. There is still some discharge from the tumour, but not any shreds."

20th. The patient visited the city. I examined her in company with Dr. Harry of Chester County. There were still some hardness and soreness over the right iliac and pubic regions, but every other part of the abdomen was natural. The menses had been suspended since the 28th of December. Ordered the tincture of iodine and an infusion of *polygala senega*.

After spending several days in the city she returned home; but in being conveyed from the depot several miles across a rough country, she received several severe jars, which caused great pain. This was followed by a most violent attack, as indicated by the following letter from her brother. "March 30: Sister is suffering very much indeed from pain in her back and otherwise, that has been so far beyond our control. We are very anxious for you to come up in the first train this morning and see her, if it is in any way in your power; her sufferings are almost beyond endurance." I accordingly visited the patient, and found her suffering the most violent agony in the back, across the loins, accompanied with tympanitic distension of the abdomen. I ordered her to be freely cupped, and to take calomel and *magnesia purgatives*, and enemas.

31st. Her brother writes: "Hannah rested well last night without the aid of anodynes. Her medicine operated well, and reduced the size of her abdomen slightly, so that she does not complain of as much tenseness as she did yesterday. Her soreness still continues, but not quite as severe as it was. She still is unable to help herself to any degree. She has improved in every respect slightly, and I think, from present appearances, she will be able in a few days to leave her bed. She has not had any return of those pains since you left." A few days after, I received the following note from another brother: "I am requested by sister and Daniel [the Doctor] to in-

form you that her health has very much improved since your visit last Sunday, although her back is yet very much affected. She has at times a beating in her back, resembling that in a gathering when ready for discharging. She has a reasonably good appetite. The swelling has very much subsided. Daniel has on one or two occasions taken some blood from her back by cupping."

May 31. The following is an extract from a letter by the patient herself: "After your kind but hasty visit, I passed four weeks of pretty severe suffering, but I have so far recovered that I have taken two short rides without much inconvenience, and on Sunday morning last I walked as far as brother's. This week I have had several slight attacks of difficulty of breathing, which have given me some uneasiness. The attacks were brought on by merely walking around the yard. The inflammation or soreness is not entirely removed from my back; it is still stiff and somewhat deformed. The swelling of the abdomen has entirely disappeared. The hardness appears to be decreasing and the discharge also."

November 28. The patient being in the city I examined her. There was no vestige of the tumour. Menstruation was regular. There was still a slight increase of the right side at every menstrual period. She was entirely well.

May 19, 1852. The patient called to see me. She was in the enjoyment of perfect health. Had become strong and hearty, and attended to the work of a farm-house. All the functions regular, and no sign of disease or tumour remained.

Remarks.—The most of this tumour disappeared in a very fetid discharge, very little of it having been removed in substance. After opening the os and cervix by the knife, and invading the tumour, the latter soon began to degenerate and diminish in size. The ergot manifested its specific action on the uterus before any attempt was made upon the os tincæ; and, after the os and cervix had yielded, its influence was decidedly increased.

Miss B. was in town a few days previously to this date [March 15, 1853], and called to see me. Her health is perfectly restored.

CASE IX.—*Mrs. E. B., 36 years old; tumour intra-mural; cervix uteri bent, against the tumour, at an acute angle; operative measures discontinued before the tumour entirely disappeared; recovered.*

November 16, 1850, I was requested by Dr. J. C. Lehman, of

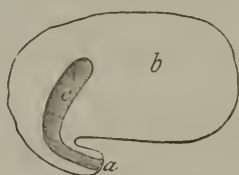
Philadelphia, to see Mrs. E. B., a patient under his care. She was a coloured woman, 36 years old. Menstruation commenced at the age of 16, and continued regularly afterward, usually lasting three or four days. It was never painful before marriage. She married at 17 years of age; after which, menstruation became very painful, more profuse, and lasted one week; so it continued for about four years, when she was relieved by medicine. The pains, at times, were equal to those of parturition. She had one child at the age of 18 years. There was no particular difficulty at the birth, except in the delivery of the placenta, which was adherent to the left side. It was three hours before it could be detached. The left side had remained sore from that time. During pregnancy, she had a slight show, regularly, every month. She soon became pregnant again, and had to wean the first child when six months old. When three months advanced she miscarried, and also twice afterward; the last illness was accompanied with great flooding. During these periods of pregnancy she had always a slight monthly show. Until she was twenty-four years old she was very thin, and her waist was extremely slender.

In 1838, she grew "big all over," even to the ends of the fingers, so that she could not pick up a pin. This enlargement after a time disappeared; but she remained stout afterward. Her first husband having died, she married again in 1843. Soon after, the abdomen began to enlarge, and she imagined she felt a movement within. Consequently, she supposed herself to be pregnant. Several physicians whom she consulted also considered her pregnant, until she passed beyond her time. By pursuing a treatment of warm baths and frictions, both the swelling and the movements disappeared, and she continued well in every respect for two or three years. In the fall of 1849, she first noticed the uterine tumour, and consulted Dr. Lehman.

16th. I first saw the patient in consultation with Dr. Lehman, and examined her. She was a large, corpulent woman. The abdomen was very fat, so that the exploration, through its parietes, could not be made satisfactorily. An examination, per vaginam, discovered the cervix uteri to be elevated to a point opposite the right acetabulum. The cervix was turned up against the tumour, at a very acute angle, and the os tinæ was directed toward the symphysis pubis. The os was small and closed, the cervix remarkably soft and flabby, and not, in the least, enlarged or expanded. Above the superior strait of the pelvis an irregular tumour could be felt, to the

left of the cervix, stretching across the pelvis, while other projections could be perceived in other directions. It was hard, and somewhat uneven, and receded from the cervix very abruptly. The sound entered with difficulty, passed up about one inch, and was then arrested by the angle in the cervix. By continuing the manipulation for some time at this point, I succeeded in passing the instrument, and it passed in about four inches. The walls of the abdomen were too thick to allow its being felt distinctly above the pubis; but the motion of its end, in the cavity, was by no means free. Pressure over the pubis communicated motion to the sound. It was impossible, therefore, to decide upon the form of this tumour, or to indicate precisely its location; but the diagnosis was intra-mural fibrous tumour. The relation of the cervix with the tumour, as ascertained by the vaginal examination, may be thus represented (Fig. 5):—

Fig. 5.



a. Cervix uteri. b. Tumour. c. Cavity of uterus.

February 4, 1851. After having placed the patient for several days under the influence of ergot, I commenced operating, by passing a long bistoury into the os tincae as far as the angle, and scoring it in several directions. The tissue of the cervix, however, was so flabby and yielding that it gave way under the edge of the knife, and very little impression was made on it. I repeated the operations on the 6th, 8th, and 10th of February, having administered ergot during the intervals, which caused considerable pain, but produced no manifest impression upon the cervix. It was only after these several operations, that I was now merely able to insert into the os tincae the point of the index-finger. On the 13th, I again used the bistoury; but very unsatisfactorily, in consequence of the very flabby tissue of the cervix. To overcome this difficulty, I had manufactured a small bistourie caché, so that I could introduce it into the uterus like a sound. The following drawing (Fig. 6) represents this instrument, at half its size. I have used it repeatedly for enlarging the cervical canal.

On the 18th, I used this instrument by passing it well into the uterus, then opening it wide, and, while kept open, withdrawing it so

that it cut its way out. It was found to answer an admirable purpose; as, the expanded instrument, by stretching the cervix, kept the

Fig. 6.



tissue tense, and thus enabled the knife to cut easily. On the 20th, I repeated the latter operation, and succeeded in opening the cervix, so as to admit the index-finger to the os internum. After another section, on the 22^d, I was able to pass the finger entirely in and hook it over the acute angle formed by the cervix. The menses now appearing, the operations were suspended until the 28th, when I again used the concealed bistoury, in association with Dr. Bruce, of Pittsburg, who had just returned from a professional tour in Europe.

March 3^d, 4th, and 8th, the long common bistoury was employed in cutting into the substance of the tumour itself, for the purpose of breaking it up and causing it to degenerate and discharge. This was followed by several other attempts, at intervals of four days, until the 25th, after which all operative measures were discontinued, in the hope that the tumour would disappear. Besides, the mass of the tumour was so far beyond reach, and the corpulency of the patient so great as to render it impossible to manipulate over the pubis, that none of the operations were full and satisfactory. The tumour, however, was evidently diminishing, and as the operations could not be prosecuted with entire safety under the circumstances the patient was transferred to the care of her physician, Dr. Lehman.

February 25, 1853. I called to see Eliza. I had not seen her since attending her in consultation with Dr. Lehman, in March, 1851. She told me that in the spring of 1851 she passed through a very severe attack of illness; that after the operation the enlargement entirely left her, and that she was quite well the whole summer following. Before the operation she had always suffered the most dreadful pains, but afterward she remained entirely free from suffering. She had menstruated regularly ever since, with the exception of two months last summer. At this time she had a sudden

fall, when she flooded a great deal. Her abdomen, at this time, is large; much of it is adipose deposit, while there appears to be also some dropsical effusion. She is still quite corpulent. I examined her again *per vaginam*, and can discover the remains of the tumour, though it has diminished considerably in size. Her general health is pretty good.

Remarks.—The great difficulty in the management of the above case arose from the acute angle in the cervix, and its extreme flexibility, and, also, from the impossibility of surveying the size and location of the tumour over the pubic region. Had the patient been a spare woman, with the parietes of the abdomen thin, so that the whole tumour could have been grasped and fixed in the hand above the pubis, I should not have hesitated to incise freely, with the bistoury, that portion of the tumour which stretched across the pelvis; and should have endeavoured afterward to extricate it from its bed without making any effort to remove it through the os tincæ. To attempt this, however, under the peculiar circumstances of the case, was considered unsafe; and hence the operation was conducted through the os and cervix uteri with only partial success.

CASE X.—Miss E. K., aged 35 years; tumour intra-mural, very prominent above the pubis, extends upwards within two and a half inches of the umbilicus; cervix folded up against the tumour; tumour as large as a child's head; removed in detached portions; apparent convalescence; death from peritonitis; disease malignant.

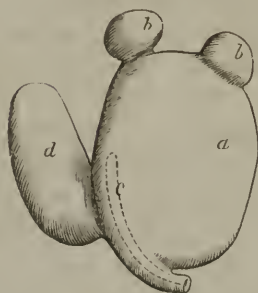
September 9, 1851. Miss E. K., of Carlisle, Pennsylvania, aged 35 years, consulted me on account of a uterine tumour. She gave the following history of herself: She began to menstruate between 12 and 13 years of age, and has continued regular since. The menses last three or four days, and are neither profuse nor clotted. She has not been troubled with leucorrhœa. One year ago last spring, she was seized with strangury, passing very little urine at a time, and very often. About the same time she felt an uneasiness in the abdomen while walking; she was hindered in her gait in the same way as if treading on an uneven surface. She noticed the tumour first early last fall; there were three of them, each about as large as a hickory-nut, hard, very slightly movable, and inclining to the left side. They were separate from each other, yet aggregated in the form of a triangle. Up to this time there had been no change in the menstruation. January last she was seized with a severe

chill, which lasted three days, but was not followed by fever, although there were heat and great soreness in the abdomen. Until this period the tumours had not seemed to enlarge nor to become sore. After this they grew rapidly, the lowest one the most. They had never put her to any very great inconvenience at her monthly periods, or at any other time, until after this chill; since, the tumour at times had become very painful, the suffering being not confined to the menstrual periods. Her physician ordered her blue pill, which benefited her for a short time, but still, the tumour continued to grow. This was in March. In April, at her menstrual period, she was seized with a fainting fit; clots of blood were discharged with great pain, and were as large as the finger. This was accompanied with coldness of the surface. Her physician now applied an ointment of iodide of potassium externally, and gave her iodine internally, but without benefit. She continued to enlarge. Since this attack the menstrual fluid has always been clotted. Several intervals of menstruation, this summer, have been prolonged to five and six weeks, and every period now is painful for two days. She is habitually costive. There is an apparent obstruction in the act of defecation. She had a severe attack of strangury in May, which was accompanied by an inability to raise the left leg. Since the tumour became painful she has emaciated. Her general health has heretofore been good, and she never has had an attack of serious disease.

On examination I found a tumour, about the size of the foetal head, presenting very prominently above the pubis. It was very hard and resisting, and extended from the pubis to a line two and a half inches from the umbilicus. There were two smaller tumours, each about as large as a walnut. The one on the right side was above the large tumour, extended to the navel, and to the linea alba; the other was about one and a half inches below the navel, and one inch to the left of the linea alba. There was some mobility in the small tumours, very little in the large one. The pelvis was filled with a solid mass. The os tincæ was sufficiently open to admit the index-finger up to the second joint, and the tumour could be felt occupying the left wall of the uterus. The cervix uteri seemed doubled up or folded against the tumour. The sound passed in four inches on the right of the tumour, and could easily be felt through the walls of the abdomen on the right side. Very little pain and no hemorrhage followed this examination. There was also an elastic swelling in the right groin, which had been there since last May. It returned a flat sound on percus-

sion. The following diagram, Fig. 7, represents the relation of the parts:—

Fig 7.



a. Solid Tumour. *b.* The two small Tumours. *c.* The Uterus. *d.* Elastic Tumour.

The diagnosis was that a fibrous tumour was developed in the left wall of the uterus. An operation for its removal was desired.

10th. Ordered seven grains of ergot every two hours. After the examination she suffered pains of a bearing-down character, which were considerably increased soon after the administration of the ergot.

11th. Ergot was omitted during the night and commenced again this morning, and was still acting well. The patient slept none after her arrival in the city.

12th. The action of the ergot having been quite sufficient, I operated by passing the long bistoury about two inches into the cavity of the uterus, turning the edge toward the left side upon the tumour, and dividing its covering. This was readily done. Afterward, by means of the index-finger, I enucleated a large portion of the lower part of the tumour without any difficulty. Very little blood was lost. Three hours afterwards I examined the abdomen—the fundus of the large tumour had descended four inches below the umbilicus, the small right tumour about two inches, and the left one was on a level with the right. The large tumour was also much less prominent, and was very much lower in the pelvis. The os tinea was dilating. The cut portion of the envelop was grasping the lower portion of the tumour like an os tinea. The tumour was soft and elastic. Considerable bearing-down pain, and slight oozing of blood, followed the operation. Ergot was omitted and an anodyne administered.

13th. Passed a good night, free from pain. Ordered ergot again, and about half an hour afterward, with Dr. Grant, examined the patient and found the tumour already softening. I extended the

opening into the cyst. The os tineaë was dilating. While Dr. G. supported the tumour externally, I was able to detach more of it by means of the finger. Administered an anæsthetic during this operation. Ordered ergot every two hours.

The same evening, with Dr. Grant, I again operated; the patient being under the influence of the chloroform mixture. I removed, in pieces, a large quantity of the tumour, perhaps one-fourth or one-third; at least, all the lower detached portions. It was still softening, although there was no smell of decomposition. Afterward, the patient took an anodyne, and had a comfortable night.

15th. Yesterday omitted the ergot and gave a laxative, which operated on the bowels. This morning ergot was given every half hour until eleven o'clock, with the effect of producing contractions of the uterus: the patient was placed under the influence of an anæsthetic, and another attempt made upon the tumour. Double the quantity of the tumour was detached in pieces; evident marks of putrefaction now existed. The tumour was reduced so as to be at least two-thirds less than its original size. It could be easily grasped by the hand. It was also softer.

17th. Dr. Grant removed a small portion of the tumour during my absence from the city.

19th. Removed the remainder of the tumour with very little difficulty; the uterus sunk below the pubis: there still remained the two small tumours and the deep-seated hardness between them, and, there was much more apparent, an elastic enlargement in the right iliac region.

After this the patient continued to improve, and was able to sit up on the 25th and the 26th, and was quite cheerful. After passing a comfortable night she awoke, at 3 A. M. of the 27th, with great pain and distress in the abdomen. I saw her at 8 A. M., with all the symptoms of violent and extensive peritonitis. In spite of the most active treatment she sunk under it, and died at 1 o'clock A. M. of the 28th.

28th, 2½ P. M.—Dr. Grant made a *post-mortem* examination. There was extensive peritonitis, the intestines were adherent and coated with lymph, and there was a large collection of purulent serum. The small tumours were projections of encephaloid matter from the uterus—the whole tissue of the uterus appeared to be converted into medullary matter, there being no muscular fibre perceptible. The right ovary was enlarged, and consisted of three cysts, each as large as a large orange, and filled with a clear fluid. The

remains of the tumour removed were observable. The liver was healthy. The disease evidently was highly malignant.

Remarks.—It will be observed that, so soon as the covering of the tumour was severed, the mass that presented was soft and elastic, and soft portions of tumour continued to descend for several days without throwing off any fetor, showing that the degeneration of the mass had commenced, before the operation, as a vital process. The tumour had already taken on a cancerous action; and this was manifested by severe pain therein, by emaciation, and the whole physiognomy of the patient. It is not improbable, therefore, that in this highly malignant case, no other than a fatal termination would have occurred under any circumstances; but I think there is no doubt that death was hastened by a cause which had no relation to the operation. The last interference with the tumour was on the 19th September, after which the patient improved so as to be up on the 25th and 26th, and in good spirits. On the 27th, she was seized suddenly with marked symptoms of peritonitis, which caused her death. For the last few days the weather was wet, cold, and uncomfortable—her room was very damp and chilly, without fire, the windows raised to free the room of unpleasant odour, and the patient not sufficiently protected by clothing. All this, operating on a system previously prostrated, was sufficient to produce the inflammation which caused her death, and most likely was the true cause of it.

CASE XI.—*Mrs. E. W., 47 years old; tumour intra-mural; the whole anterior wall nodulated from the fundus to the os tincæ; patient perfectly anemic; incised the whole length of the uterus; recovered.*

In the latter part of September, 1851, Dr. Harry, of Chester County, called at my house to consult upon the case of Mrs. E. W., who had been greatly prostrated by repeated uterine hemorrhages, and in whose case he had exhausted all remedies. From the history of the case I suspected the presence of a tumour, and requested him to make an examination and write the result. The following is an extract from his letter: "I have just examined Mrs. E. W., and find the os uteri open to about the size of a shilling, and very dilatable, not possessing any contractile power; and within about an inch of the os a tough elastic kind of tumour occupying the whole of the uterus. I could neither pass my finger through it nor around it, so firm did its attachments appear to be. She still continues to waste, and is con-

siderably exhausted, but not more so than I have seen her at other times. I stated to her and her husband the situation I believed her to be in, and told them I did not know of any remedy but the removal of the tumour. She and her husband wished you to be sent for immediately. I hope you can make it convenient to come up in the morning train."

September 30, 1851. I accordingly went to see Mrs. E. W., of Chester County, in consultation with Dr. Harry. The patient had been very much reduced by uterine hemorrhage, which was still going on. On my visit I received the following history: She is 47 years of age. At 14 she first menstruated, and without trouble or pain. The intervals were regularly three weeks, and the flow one week, free from clots, and not followed by leucorrhœa. She was married in the spring of 1827, the fall previous to which she took cold, and then had a painful menstruation. Eight weeks after marriage, she suffered dreadfully during menstruation. Since marriage she occasionally has had painful and clotted menstruation. She sometimes suffers, for three hours, the greatest agony, resembling labour-pains, of which she was relieved, once or twice, by taking the muriated tincture of iron. Last February, five years ago, at a regular menstrual period, in the course of one night, she had a copious loss of fresh blood, which produced extreme debility. For several successive periods the same thing occurred, with the same results; after which, the menstrual fluid began to clot, part of the time being fluid and part clotted. After some time the interval diminished to two weeks, sometimes to one, and finally she was hardly ever free from a sanguineous discharge. Fifteen months since she had a copious hemorrhage; another, six months afterward, and another three months after that, besides a continual discharge, varying in colour, sometimes white, at others red, and again as dark as tar. When the discharge was white, there was a great deal of watery fluid, resembling clear water, which gradually became darker and darker, and finally clotted. At times it was accompanied with a very offensive odour, though this had not been the case latterly. One year ago she had an attack of strangury, burning and itching in the bladder, and was forced to urinate very often. Formerly her bowels were constipated, now they are regular. Mostly, there is a feeling of obstruction during defecation. She has never been pregnant. Last June, three years ago, she had a severe attack of pain across the hips and lower part of the abdomen, which occurred directly after an attack of flooding. She has had two other attacks since, also after flooding, but not so

severe. Last winter a year, she had a very distressing attack of neuralgia in the epigastrium, which lasted six weeks. Two years ago, in going down stairs, she fell and injured her back so as greatly to disable her.

She is now very much blanched from the loss of blood; and her pulse, which is 92, is very feeble. Her appetite is good. The skin has a peculiar straw-yellow colour.

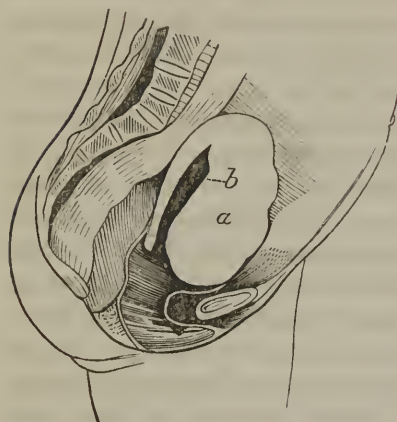
I examined Mrs. W. and found that the anterior wall of the uterus was hypertrophied and nodulated, extending from the fundus to the os tincæ. It had not the usual fibrous feel, but yet there was considerable hardness in the enlarged wall. Viewed with the speculum, the anterior lip seemed to bulge into a rounded mass, as large as a small walnut, while the posterior lip was stretched around it. The sound passed into the uterus about one inch easily, then it was arrested in its progress, but after considerable difficulty and pain, it passed through an apparent stricture with a slip, and entered about three inches.

Every means having been employed by Dr. Harry, without effect, to arrest the hemorrhage, I proposed to lay open the hypertrophied portion of the uterus, with the double object of arresting hemorrhage and destroying the disease. The proposition having been accepted, I passed the long bistoury three inches into the uterus, and turning its edge against the anterior hypertrophied wall, made an incision along its whole length, sinking the knife deeply into the substance of the uterus. Immediately the nodules diminished, and the mass became softer. The hemorrhage at once ceased, and no bleeding followed. On withdrawing my finger, there adhered to it a grayish kind of matter. I could still feel another nodule to the left of the incision, but not larger than the smallest filbert, which I also incised. The following diagrams [Figs. 8 and 9] represent the condition of the parts previous to the operation.

Several days afterward I received the following letter from Dr. Harry: "The night after the operation, I was sent for to use the catheter, and drew from her about a pint of water; since which time she has remained rather comfortable, with the exception of neuralgic pains at different times and in different parts. She still continues to waste a little, but not so much as before the operation, and the discharge is becoming fetid. I examined the os uteri and found it in about the same condition as when you left. Her general appearance is better, and she told me to say to you that she felt *much* better."

September, 1852. I have seen Mrs. W.; she has improved very much in health, and has had no return of hemorrhage.

Fig. 8.



a. Hypertrophied wall. b. Cavity of uterus.

Fig. 9.



a. Tumour in anterior lip. b. Posterior lip stretched around it. c. Os tincæ.

Remarks.—This case illustrates a mode of practice in prostrating hemorrhages arising from the presence of fibrous tumours, which I wish to impress upon the attention of the profession. Here all the usual remedies for arresting uterine hemorrhage had failed, but so soon as the hypertrophied wall was incised it ceased. The general health and constitution also had become greatly impaired, the cancerous diathesis seemed to have been developed, and even the tumours had softened so as to stain the finger with a grayish encephaloid matter; yet the operation was followed by restoration to health.

CASE XII.—Mrs. E. A. M., 42 years old; tumour extra-uterine or pelvic; the uterus and bladder raised into the abdomen; gastrotomy; non-removal of the tumour; recovery from the operation; subsequent operations per vias naturales; tumour diminished in size; recovered.

Mrs. E. A. M., aged 42 years, consulted me for an abdominal tumour, November 28, 1851. The menstrual flow commenced at 11 years of age, and occurred without pain or any other unpleasant symptoms. Her sister and her sister's child also menstruated at 11 years of age. For three or four months succeeding this the menses were irregular, occurring every week or two, the discharge having a natural appearance. She then became regular every four weeks. At 18 years of age she was married. A few months following, after

undergoing very great fatigue, she was seized with great pain and pressure in the womb, and was confined to her bed for one week. This attack was accompanied with much irritation of the bladder. For a considerable time after, the slightest cold renewed the inflammation, but it never was as severe as at the first attack. During this critical state of health she was irregular, and, for a year after, was subject, at times, to fainting fits of ten minutes' duration. Ever since, she has had to observe great care, in winter, against taking cold, and is particularly liable to cold when at the water-closet. Her attacks of cold fall always upon the womb. About twelve years after marriage she suffered intensely from a violent attack of pain in the neck of the bladder, with a constant desire to make water. This came on while travelling, and became so severe that she had to remain for a week. The urine was excessively hot. Since then she has always felt obstruction in urination, and for the last two or three years the calls are frequent. She has always had bearing-down and pressure since her first attack of pain, and has not been able to walk without great fatigue. The bearing-down pain at times has been so severe that her face would become purple. Two years since she suspected there was an enlargement of the large bowel, feeling as if there was a sinew stretched across her in front, and also across the lower part of her back. She had also suffered for years a pain in the xyphoid cartilage. Bowels are always regular. Never has had leucorrhœa.

About five years ago her friends noticed an enlargement of the abdomen, and she first felt something like a "lump" over the pubis, in the centre, about two years ago. It was uncomfortable on pressure and hard, about one and a half inches in diameter. It continued to increase in tenderness, but she was in a measure relieved by a liniment of laudanum, olive oil, and hartshorn. The last few weeks she had to enlarge her dresses in consequence of the distress at the epigastrium. She was forced to take off her stays one year ago to relieve herself from pressure about the pubis. Coitus has always been very painful; it was dreadful soon after marriage. It was least painful just previously to menstruation. After the first severe attack, a lady recommended her to wear a gold globe pessary, which in the course of half an hour gave her great relief from the pressure. She wore it perhaps a year; after that coitus was not so painful.

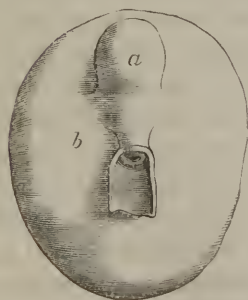
About two months since her physician, after making an examination, decided the existence of a tumour, and recommended her to consult me.

December 5, 1851, I examined the patient. When lying on her

back, there appeared to be a general fulness of the abdomen, uniform in shape, and well supplied with adipose tissue. A tumour could be indistinctly felt occupying the whole lower part of the abdomen, below the umbilicus. It was evidently very deeply seated, and hard to distinguish, but could be felt most distinctly over each groin, by deep pressure. There was a very tender spot about two inches below the umbilicus.

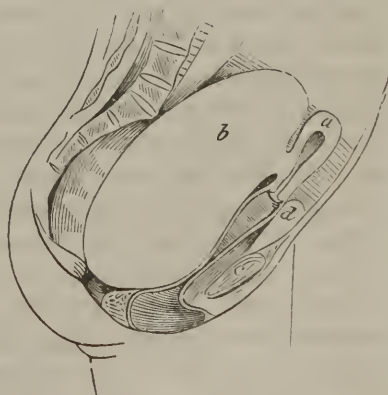
On examining per vaginam, the pelvis was found to be occupied, almost wholly, by a resisting tumour, having a firmly nodulated, or granulated feel. It seemed to lay behind the vagina, pressed against the perineum, and filled up the whole cavity. No appearance of the uterus could be discovered in the pelvis; but by placing the patient on the left side, with the knees drawn up, and pushing up the index-finger, to the utmost extent, behind the pubis, the os tincæ could be merely reached—it occupied a position about one and a half inches above, and anterior to, the symphysis pubis. The os seemed entire and detached from the tumour. With considerable difficulty the uterine sound was introduced and carried up into the interior of the organ four inches; and its point could be easily felt one and a half inches below the umbilicus, seeming to be quite superficial. The operation gave some pain, but there was no bleeding. The sound introduced into the bladder, showed that this organ also was elevated into the cavity of the abdomen. There was no examination per rectum, in consequence of an attack of hemorrhoids. The following diagrams, figures 10 and 11, represent the relative position of the parts.

Fig. 10.



a. Uterus. b. Tumour.

Fig. 11.



a. Uterus. b. Tumour. c. Pubis. d. Bladder.

9th. Examined the patient again, in company with Dr. Grant. The sound was introduced; and, while in the uterus, Dr. G. manipulated the tumour; but, in consequence of the peculiar position of the uterus, no motion could be communicated to the tumour without necessarily giving a similar motion to the uterus. The sound, however, did not appear to move to an extent corresponding to the motions of the tumour, but synchronously with it. A sound passed into the bladder, did not incline to either side. Per rectum, the tumour was felt anterior to the bowel, which was pressed by it back close against the sacrum. The tumour occupied the whole space between the rectum and the vagina, and filled the pelvis. Upon placing the patient upon her elbows and knees, I attempted to press the tumour from the cavity of the pelvis; and, although I supposed I raised it about one inch, I could not dislodge it from its bed.

The same evening Dr. Rumsey, her former physician, met us, and stated that, when he made examination two months ago, he could distinctly feel the tumour extending two or three inches above the umbilicus, and that it was readily movable from side to side; that the shape of the abdomen has since altered; that, instead of being quite prominent, it has become wider below, and flatter; and, that he thinks the tumour may have tilted over, which now causes her the great distress she is suffering.

The diagnosis in the above case is quite obscure. The tumour is fibrous—most probably extra-uterine; but, as we could not decide, we have agreed, if the patient should insist upon an operation, to open the abdomen, and be governed accordingly.

I was first called to see Mrs. M. November 28, and found her suffering great agony, which had existed for two or three days. The pain was through the abdomen; more particularly, just below the navel. She had already taken morphia for relief; but it distressed her stomach. I ordered suppositories of opium and camphor, and a liniment of tincture of arnica, opium, and camphor, which gave her some ease. Her menses were present at the time. The severity of the suffering, however, increased afterward; and, on the 30th, I placed her under the influence of an anæsthetic mixture, with a very happy effect. The next day, I ordered a dose of turpentine and oil, which afforded relief, but induced hemorrhoids. After this, again the agony became extreme, and chloroform was repeatedly resorted to, associated with other remedies. On the 8th December, a belladonna plaster was applied to the abdomen, and, on the 9th, the following compound, made into a pill, was ordered three times a day:—

R. Pilul. hydrarg. ;
 Extract. hyoseyam. āā grs. ij. ;
 Rad. ipecac. pulv. gr. ʒ.

10th. Had a comfortable night, and was tolerably easy all day. Pain in the epigastrium and the left side, which had been very distressing, now gone. There was pain in the right side. Pulse 76. The tongue clean. Before this, the tongue had been covered with a very white and harsh fur, with red tip and sides. This fur had cleaned off, leaving a chapped and bright-red tongue, but the redness had diminished. Bowels had been moved several times.

18th. There were slight symptoms of pyalism. Pills suspended. Patient did very well after last report, but complained of great soreness just below the umbilicus, corresponding with the location of the uterus. Much of the tympanitis and distress of abdomen had disappeared. Tongue clean; appetite improved; countenance better. It was necessary occasionally to use chloroform, to relieve pain. Bowels regular. Menstruation.

20th. The operation of gastrotomy was performed. The tumour was not removable. It occupied the posterior and inferior part of the cavity of the abdomen. It had a hard, unyielding, fibrous feel. Its upper surface was covered by peritoneum, which was soon reflected off to the walls of the abdomen—showing evidently, that it had originated in the cavity of the pelvis, and, as it increased, elevated the peritoneum above it. The patient recovered rapidly from the operation.

March 13, 1852. The patient was much more comfortable after the operation of gastrotomy, but regretted that she still had to endure the presence of the tumour. Having ascertained, at the time the abdomen was open, the exact location of the tumour, I proposed making an effort to destroy it through the vagina. Accordingly, assisted by Prof. Grant, I made an incision through the posterior wall of the vagina, until I came upon the tumour, into which I sunk the knife to the depth of at least three-fourths of an inch. The opening admitted the point of the index-finger, and it was filled up by means of a sponge tent. There were very little bleeding and very little pain, and the operation was followed by no unpleasant symptoms.

15th. Removed the tent, which caused some pain, but very little disturbance of the system. The bowels and bladder have acted well, and without pain, since the operation.

16th. Operated again—enlarged the opening in the wall of the

vagina, so as to admit readily the index-finger. Afterwards, with the finger, I enucleated the lower portion of the tumour from the wall of the vagina, for about two inches in circumference, all round. Very little bleeding followed.

18th. I examined the patient, and observed that the lower portion of the tumour was throwing off a somewhat offensive discharge, so as to contaminate the finger with its odour.

20th. Called to operate again, but the patient had been menstruating since yesterday, and in consequence, the operation was deferred. On examination, however, I discovered that the tumour was beginning to soften, and the finger came away much more fetid. The patient also complained of the offensiveness of the discharge.

23d. The patient has been complaining of fulness and pain in the anterior and inferior part of the abdomen, and some oppression in breathing. Last night, however, a large gush of very offensive fluid occurred from the vagina, which relieved her. No doubt, the fluid had been retained in a purse, between the posterior wall of the vagina and the tumour, and the distension caused by it produced the distress.

24th. Another copious and very offensive discharge occurred again this morning. I enlarged the incision through the vagina upwards and downwards, and separated much more of the tumour, which had softened down greatly; the odour was extremely offensive, showing a rapid degeneration.

April 14. Up to this date the discharge from the tumour was very copious and offensive, occasionally stained with blood. At the same time the size of the abdomen diminished. To-day I operated again, extending the incision through the walls of the vagina towards the rectum nearly an inch more, and, having detached more of the tumour, I turned the edge of the knife forward, sunk the beak into the tumour, and cut through its substance, carrying the knife forwards towards the pubis, and divided the tumour in an antero-posterior direction. On passing the index-finger into the interior of this cut, I found the tumour quite softened and cellular, and a dark-coloured blood issued from it rapidly. This blood was mixed with other discharge, had an offensive odour, and was partly coagulated. From four to six ounces having come away rapidly, I introduced a sponge tampon, which immediately arrested the discharge.

After this the discharge continued more or less for several weeks; the tumour softened and very much diminished in size; the general health greatly improved; the patient began to exercise out of doors; and in the latter part of June, the discharge having ceased, and all

operative measures having been carried as far as it was deemed safe, she went to the country for the summer.

September, the patient returned to Philadelphia; having enjoyed excellent health during her absence. The abdomen is still large, but in all other respects she enjoys good health.

Remarks.—The above tumour being extra-uterine, there was nothing to be gained by the administration of ergot, and consequently it was omitted in the treatment of this case. The separation of the lower portion of the tumour from its envelop, and the admission of air into its texture, started the process of cremacausis within it, which extended to a large portion of the mass. The patient at this date [March 15, 1853] is in the enjoyment of good health.

CASE XIII.—*Mrs. W. G., 62 years old; tumour intra-uterine; attached to the cervix; tumour removed; recovered from the operation; apprehension of cancerous degeneration.*

September 25, 1852. I examined Mrs. W. G. of Baltimore, a very large and corpulent lady. The uterus is enlarged, but movable, its mouth thrown back towards the rectum, and rather difficult to reach. The cervix was expanded; and, upon inserting the point of the index-finger into the os tincæ, which was sufficiently open to barely admit it, the anterior lip seemed to have been much thinned down, and the posterior one thickened. But the latter condition, viz. the thickening of the posterior lip, was only apparent; for, upon examining it more accurately, this thickened portion proved to be the lower part of an intra-uterine tumour, over which the posterior lip was tightly stretched, and to which the internal face of the cervix was attached; or rather the tumour seemed to have its pedicle arising from this point. The os tincæ was very much attenuated, open about half an inch in diameter, and stretched over the tumour, which, however, was entirely within the cavity, and seemed to be retained there in consequence of its attachment to the cervix. The sound entered the uterus four inches, and gave no pain. Very little bleeding accompanied the examination.

The following history of the case was written out by the patient's daughter, and is given in her own words: "Mother says, as near as she can recollect, she began to menstruate between the age of fourteen and fifteen, and was regular for about one year, when she was afflicted with a white swelling, of which she suffered for about five months. Her monthly sickness did not return then for about one

year. She then continued regular. She was married at the age of twenty-eight. She is the mother of three children. The first was born in her 29th year, the next in her 32d, the last in her 34th. The afterbirth was attached to the last for about twelve hours. Her constitution was always good, her usual weight being about 275 lbs. She thinks change of life began at the age of fifty, from which she suffered little or no inconvenience, excepting an unpleasant itching in the groin and an occasional show. Of the latter I do not know that she was ever clear longer than three months at a time. She continued in that way until the sixth month 1851, in her 61st year of age, when she was taken with hemorrhage of the womb, which we thought was brought on by over-exertion. After a short time she became better, but had more or less discharge every day, affecting her very little, as she walked or rode out at pleasure. In the fifth month, the spring following [1852], she had another attack of hemorrhage, worse than ever, with periodical pain in her hips and back, which we checked by the Thompsonian treatment. She then partially recovered, the discharge being of a brownish colour, which continued until the middle of the eighth month following, when she was again taken with the hemorrhage, amounting to flooding, and we feared it would prove serious. We again resorted to the above-mentioned remedies, and flooding in some measure ceased, but in about two weeks she was taken with pain in the hips and back, which were apparently severe labour-pains. We then became more alarmed, and proposed to her to go to Philadelphia, and see Dr. Atlee. She consented, thinking it the last resort, as she was then suffering almost indescribable pain. We left Baltimore on the morning of the 25th of ninth month, and arrived safely in Philadelphia. She was favoured to get along without much suffering."

26th. I ordered $\mathfrak{z}\text{j}$ of powdered ergot to be scalded by nine tablespoonfuls of boiling water, and one spoonful to be administered three times a day. On the 27th, the ergot acted efficiently, and the patient had active labour-pains. An examination proved that the pain was uterine.

28th. The dose of ergot was omitted at evening, as the action of the uterus still continued; and, as it was desirable for the patient to have sleep, morphia was administered, but with very little alleviation of the pain until towards morning, when she got a few hours' rest. After a dose of ergot had been taken, which produced intense pain, I introduced the long bistoury, and nicked the anterior edge of the os tincæ in several places. After the incisions, I could sensibly per-

ceive it yielding. No blood followed. In the evening I examined the patient, and found the tumour engaging in the os tincæ, and a slightly fetid odour was thrown off. The os was still more expanded.

29th. The uterine pains continued most of the night, the patient getting no sleep until towards morning. A dose of ergot was again administered in the morning, and again I nicked the os tincæ. In the afternoon my brother, Dr. J. L. Atlee, of Lancaster, visited the patient with me. The os tincæ was opened to the size of a quarter of a dollar. The expulsive pains continued.

30th. By means of the long bistoury I separated a large portion of the tumour from the left side of the cervix. This was done by keeping the edge of the knife inclined towards the tumour while its back was pressing against the interior of the cervix, the knife being guided by the point of the left index-finger. Very little bleeding occurred.

October 2. The tumour was descending, and I discovered attachments around the right side and in front. I detached all within reach in the same way as those on the left side. That portion of the tumour previously separated was evidently softening, and a decided fetor was perceptible. In consequence of the use of ergot she had suffered severe pain most of the time until 12 o'clock at night, when, by means of an opiate, this seemed to subside, and she slept well until morning, which refreshed her much.

3d. The discharge from the vagina became so very offensive as to require injections of a solution of the hypochlorite of lime. The pains again became intense, and were relieved by an opiate at night.

4th. By means of the finger and knife I separated the lower portion of the tumour from the walls of the uterus. It was softening more and more, and could now be readily broken down. It was getting still more offensive, and the discharge was increasing in quantity. Ergot continued. After the operation to-day, she had a slight chill, followed by some fever, and in the evening an attack of cholera morbus, which was soon checked.

6th. After administering a double dose of ergot, I operated again, and removed several pieces of the tumour by means of Bond's placental forceps. Two of these pieces were as large as walnuts, and very much degenerated, while another portion, removed, possessed evidences of vitality. It was estimated that about four ounces by weight were removed.

8th. After giving another double dose of ergot, I again removed

about four ounces of the tumour, and broke up more of it within the uterine cavity, and separated its attachments to the walls of the uterus. The fetid discharge was copious, and its offensiveness almost intolerable. Ordered ergot to be taken every hour until active labour was induced. This occurred about 12 o'clock M., and she suffered until next morning.

10th. The whole cervix was now free from tumour, the os tinea seemed to be contracting, and in the interior of the uterus I could feel the remains of the degenerated mass. The discharge was still more and more fetid. There was now no more red or flesh-like discharge.

13th. Ergot has been continued. The os is still closing more, and begins to grasp the finger. The shreddy remains of the tumour can be felt lining the walls of the uterus, and the offensive discharge continues.

16th. The patient being a very large and corpulent woman, with an abdomen loaded with fat, it was impossible to recognize the tumour through the parietes above the pubis, and consequently it could only be surveyed through the vagina. As all the tumour within reach seemed to have disappeared, I permitted the patient to return home.

22d. I received a letter of this date from her daughter, saying: "We left Philadelphia in the morning train for Baltimore; had quite a pleasant ride home; mother stood the journey beyond our expectations, for I do not know that she was any worse after we arrived than when we started. Her situation is much the same as it was when we left. We began giving her the ergot the next day, and have continued it, with the exception of one day. She has suffered severe pain every night since, with the exception of the one when she omitted the ergot. The discharge has varied a little; it is not so dark, more of a watery colour and character, and not quite so profuse. Her appetite has increased some since her return, and her general health is as well as we could expect, and her spirits still keep good."

30th. She writes: "Mother has had a different discharge from anything that she has had since the first week she was in Philadelphia. It looks like clotted blood, about a tablespoonful. It appears to be mixed a little with those little strings, and does not smell like the other, but quite as unpleasant to me. Her general health appears to be quite well."

November 14. Dr. Weeks, of Philadelphia, a friend of the patient, called at my house, and stated that he had been at Baltimore last

week, and had examined Mrs. G. He found the os tinæ nearly closed, and thrown back, and difficult to enter. About three ounces of fetid discharge followed.

22d. Her daughter writes: "After the examination by Dr. Weeks, mother appeared much better; the discharge was more profuse, and of a thicker character. It appeared that the passage had in some measure become stopped. About three evenings ago she had quite a flow of blood, which did not last long, the discharge amounting to, I suppose, about two ounces. She has rested most of the night for the last two or three, but so soon as she rises out of bed, she has the return of pain, which sometimes lasts all day, but is not so severe as it has been. The discharge is still of a watery character, and resembles the washings of meat as much as anything else I can compare it to, sometimes more offensive than at others."

December 7. At the desire of the patient, I visited Baltimore and examined her again. The os tinæ, instead of being thinned, was now thickened and indurated; its orifice rather easily admitted the index-finger; no tumour on the interior could be felt. There was still a constant offensive discharge of a brownish colour. Her general health was tolerably good. From the condition of the os tinæ, I suspected the existence of scirrho-cancerous degeneration.

18th. Her husband wrote as follows: "There is not much change in my wife since thee was here, until the last few days, and that has been quite a flow of blood, say from eight to ten ounces within the last twenty-four hours. Since the bleeding commenced, the discharge has not been so great, nor nearly so offensive."

This is the last account I have had of the patient.

Remarks.—The greatly enlarged abdomen of this patient by adipose tissue, rendered it impossible to know anything about the development of the tumours upwards. I am inclined to think, however, that they projected from the interior of the cervix, and that they originally were scirrho-cancerous. After their removal the same disease developed itself at the points of attachment, and in the os tinæ. The final result of the case is not yet determined.

CASE XIV.—*Mrs. S. G., about 49 years of age; tumour intramural, having been developed in the anterior wall of the uterus, and expanding that wall into a cyst inclosing it; the whole tumour removed; supposed weight seven or eight pounds; recovered.*

Early in March, 1853, Mrs. S. G. came from Montgomery County,

Penna., to consult me for an abdominal tumour. After a slight examination, she returned home, with the intention of making arrangements to come again to Philadelphia, to place herself under my care.

March 22, 1853. The patient having presented herself, I made a careful examination of the case, in company with Dr. T. G. Drysdale. She was rather a large woman, but having a relaxed abdomen, not much covered with fat, she was easily examined. The abdomen was occupied with a firm, solid tumour, the size of an adult's head. It extended about one inch above the umbilicus, within the same distance of the right superior spinous process, not quite so near to the left superior spinous process, and quite prominent anteriorly. It is not very movable, nor very sensitive on handling.

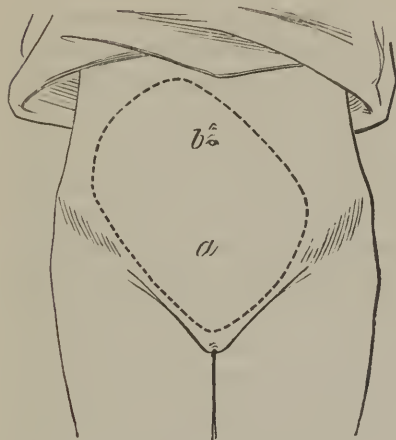
The os tincæ was thrown backwards, but could be reached without much difficulty. The point of the finger readily entered it; and, by the exercise of some force, could be passed through a pretty thick and rigid os, by which it was firmly grasped. Its thickest part was anterior. After passing the finger through the os tincæ and cervix, up to the second joint, a tumour could be felt occupying the anterior wall of the uterus, and bulging towards its cavity; it seemed to be continued from the thickened part of the cervix. While the finger was thus inserted, and the other hand placed upon the abdomen, so as to grasp the tumour, the uterus and tumour could both be played between them in every direction, proving that they were intimately united. The sound entered $6\frac{1}{2}$ inches, taking a direction backwards, behind the tumour, and its end was felt above the umbilicus, deeply in, back of the tumour, and rather above it. The sound, while in this position, could be played between the two hands. Every motion of the tumour was communicated to the sound, and *vice versa* every motion of the sound was given to the tumour. The tumour could plainly be felt, occupying a position between the sound internally and the hand placed over the abdomen; and it evidently was inclosed in the anterior wall of the uterus. The following diagrams (Figs. 12 and 13) represent it:—

The foregoing examination was accompanied with slight bleeding, and the stretching of the os tincæ by the index-finger caused some pain.

The history of the patient follows: She was about 49 years old, began to menstruate at 14 years of age, and was always regular afterward. The menstrual flow invariably commenced with pain, and lasted six or seven days, but was very little in quantity. When 18 years of age she married, had six children, and her labours were

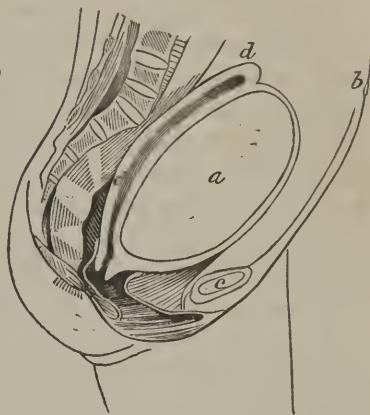
usually difficult. She nursed all her children until they were two years of age. Her last child was born sixteen years ago. Between

Fig. 12.



a. Tumour. b. Umbilicus.

Fig. 13.



a. Tumour. b. Umbilicus. c. Pubis. d. Uterus.

the births she had two miscarriages, at the period of two months gestation, accompanied with considerable flooding. Her menstruation had been suspended during the intervals of childbearing, but after weaning her last child she again became regular; and, although she suffered pain, it was less so than before. About two and a half years ago, the menses assumed a clotted character. This was about one year before she noticed the tumour. The clots were as large as the fist, and accompanied every period, lasting three or four days; and she was so debilitated by the discharge that she was forced to keep in bed all the time. She had had great difficulty in passing urine; sometimes it came only drop by drop, at others in a stream, then would stop all at once. There was no difficulty in defecation. She still has her monthly turns, but often floods greatly. She menstruated last week. Last fall a year she first discovered the tumour. It was then as large as her two fists; her physician examined it, and treated it for six months with iron and iodine. It was sore to the touch, was not movable to any great extent, although it seemed to fall from side to side, in turning her body.

In anticipation of an operation, I now ordered her to take seven grains of powdered ergot every two hours, until I should see her.

23d, 3 o'clock P.M. Dr. Drysdale and myself called again. The ergot had produced slight sickness, some distress of the head, and

pain and tightness in the back, loins, and lower part of the abdomen, and there was rather more tenderness of the tumour. She had taken seven or eight doses of ergot, and its specific action on the uterine fibre was manifest.

The ergot having acted sufficiently, I placed the patient across the bed, with her hips on the edge and her feet on two chairs, and while the tumour was well supported by Dr. Drysdale, passed my left index-finger into the cavity of the uterus, upon which I glided a long bistoury, pushing the blade up its whole length. After getting the bistoury well into the cavity of the uterus, and as high as possible, I turned its edge against the tumour and cut boldly into its substance as I withdrew the knife, laying open its uterine envelop the whole way down to its lower extremity, and sinking the blade into the body of the tumour, from half to three-fourths of an inch. Dr. Drysdale felt the knife grating through the fibrous texture of the tumour as I carried it through. With the point of the index-finger I now endeavoured to enucleate the lower portion of the tumour from its cyst, which I succeeded in doing, to the extent of two or three inches in diameter. At one point, a thick band obstructed this part of the operation, which I severed with the bistoury. There was not so much bleeding during this operation as accompanied the examination previously;—only a mere stain on the finger introduced. The patient complained very little of the operation. Ergot was continued, as before.

24th. The patient had been sickened by the ergot, and it had also increased the distress in the head. It likewise caused pain and tightness in the back and lower part of the abdomen. The tongue was somewhat furred, and there was slight febrile excitement. She had taken no ergot to-day; ordered it not to be resumed.

The os tinæ was thrown more forward, and was more easily entered; the tumour had descended, and could be touched with the index-finger half an inch from the os. The lower portion of the tumour appeared to be softening, and it threw off a slightly fetid odour. I again succeeded in shelling off more of the covering of the tumour with my finger.

Upon examining the patient, while lying on her back, the tumour was found to have descended about one and a half inches below its height yesterday. It occupied a more central position, and seemed to be narrower. She had a reddish serous discharge from the time of the operation.

25th. The tumour had diminished in size in all directions, and was

softer over its anterior face. The cervix distended rapidly, and the tumour was pressing against the os. The finger discovered the tumour immediately on entering the os tinæ, and could be passed in all around the mass. It was quite clear that the lower portion of the tumour was escaping from its uterine cyst, and was rapidly degenerating and throwing off an unpleasant odour; the finger was stained by a dirty-looking discharge.

26th. The os tinæ was opening more and more, having expanded to the size of a shilling, and was thinning down at its edge. The tumour presented a much softer feel, was rapidly degenerating, and throwing off a more offensive discharge of a dirty colour. She had taken no ergot since the 23d; but a combination of blue mass, opium, and ipecacuanha. There was slight febrile excitement, and the tongue was coated with a white slimy fur. Ordered ergot three times a day.

28th. The ergot had produced decided uterine pains. The os tinæ was opened to the size of a quarter of a dollar, and dilatable. The size of the tumour was greatly diminished. It was softening more and more, and the discharge increased in quantity and offensiveness. The mercurial compound was suspended yesterday.

29th. Labour-pains pretty strong. Os tinæ open to the size of a dollar. Tumour still becoming smaller; discharge quite copious, and very offensive. Ordered an anodyne at evening.

April 3. Having been much indisposed, I had not been able to see my patient for several days until this day. The tumour in the mean time had diminished so much that, to the eye, nothing abnormal was observable in the abdomen. The top of the tumour could be felt at least two or two and a half inches below the umbilicus; the whole tumour was narrowed, and also much flattened, or, rather, much less prominent. The extremely fetid discharge continued. The doses of ergot had been continued with anodynes at night. Labour-pains were always induced by the ergot.

4th. In company with Dr. Drysdale, I attempted the removal of a portion of the tumour. The os tinæ was now fully dilated, and occupied by a large mass of the degenerated tumour, and above this mass could be felt a much more solid and resisting portion, upon which the disorganized and flabby mass was movable, and to which it seemed attached. Dr. Drysdale now placed both hands upon the lower part of the abdomen and supported the tumour firmly, while I, by means of Bond's placental forceps, the erchet-hook, and the index-finger, succeeded in removing a large quantity of the dead tumour, which had evidently been originally fibrous, and still ex-

hibited some of its characteristics. This brought me in direct contact with the more solid portion above. I now endeavoured to break up its structure, which I succeeded in doing, partially by the crotchet, but much more effectually by the point of the index-finger, the nail having been sharpened for that purpose. She bore the operation well.

On examining the abdomen afterwards, it was very apparent that there was a great diminution of the tumour.

7th. Assisted by Dr. Drysdale, I again succeeded in removing a large mass of the tumour, in the same way as before. The remains of the mass could be felt occupying a very limited space immediately over the pubis, its largest bulk being to the left of the linea alba. The mass on the right of the linea alba had nearly disappeared. The discharge was still copious, thick, of a dirty colour, and extremely fetid. No bleeding accompanied the operation, or followed it.

11th. Very little of the tumour could now be felt over the pubis. The discharge continued the same in character, but less copious. Per vaginam, I could detect the remains of the tumour within the os tincæ. The whole seemed softened and degenerated. With the point of the finger I disintegrated it, and removed several portions with Bond's forceps. Up to this time the patient had taken two doses of ergot daily, which always acted efficiently, and an anodyne at night.

20th. The patient had been getting along very well. The ergot and anodyne were continued, as before, up to this date; and, as no fetor was now observed in the discharge, they were discontinued. The fundus of the uterus was below the level of the pubis, yet it could still be felt by pressing the finger in behind the symphysis. The health of the patient was improving, and I allowed her to sit up.

May 1. Since the ergot had been omitted there had been a very rapid improvement of the health. The patient had been sitting up and walking through her room daily. Her appetite was good, she indulged in good substantial food, and she was making preparations to return home. On examining her, I found that the debris of the tumour had been thrown off by the uterus, and was occupying the cavity of the vagina as a condensed disorganized mass, from which it was readily removed. The whole tumour had now disappeared. Its original weight is supposed to have been about eight pounds.

Remarks.—This case, as well as some others, illustrates the fact

that ergot will induce contraction of the uterine fibre *ab origine*, not requiring, as is supposed, to be preceded by parturient efforts. It would seem that one condition necessary to the specific action of ergot is, an elongation or greater development of the muscular fibre from any cause. This condition may either be partial or general, and its cause may be located either in the parenchyma of the muscular wall, or in the cavity of the uterus. Under either of those circumstances, the tendency of the action of ergot is to restore the elongated fibre to its original normal condition. Ergot, therefore, becomes a powerful agent in the treatment of fibrous tumours of the uterus, as the foregoing cases prove. In intra-mural tumours, or those entirely incased, I make an artificial os tincæ with the bistoury; the expanded fibre, stimulated by ergot, contracts, and the tumour is expelled on the same principle that a polypus or an ovum is expelled by the uterus.

This case also proves clearly that a section into the substance of these tumours is soon followed by their degeneration. Whether this is caused by destroying the integrity of their envelop, or through the admission of atmospheric air, it is difficult to decide. Perhaps both causes operate. Certain it is, however, that these tumours are so imperfectly organized, that eremacausis soon follows the above treatment, and may be developed throughout the whole mass.

Another fact illustrated by this case is the very important and practical one that we never need hesitate cutting boldly into those masses through fear of hemorrhage. Before the operation this patient had frequent floodings, and even during the examination she had pretty free bleedings; but from the moment of dividing the walls of the envelop there was no more tendency to bleed. This is my universal experience.

